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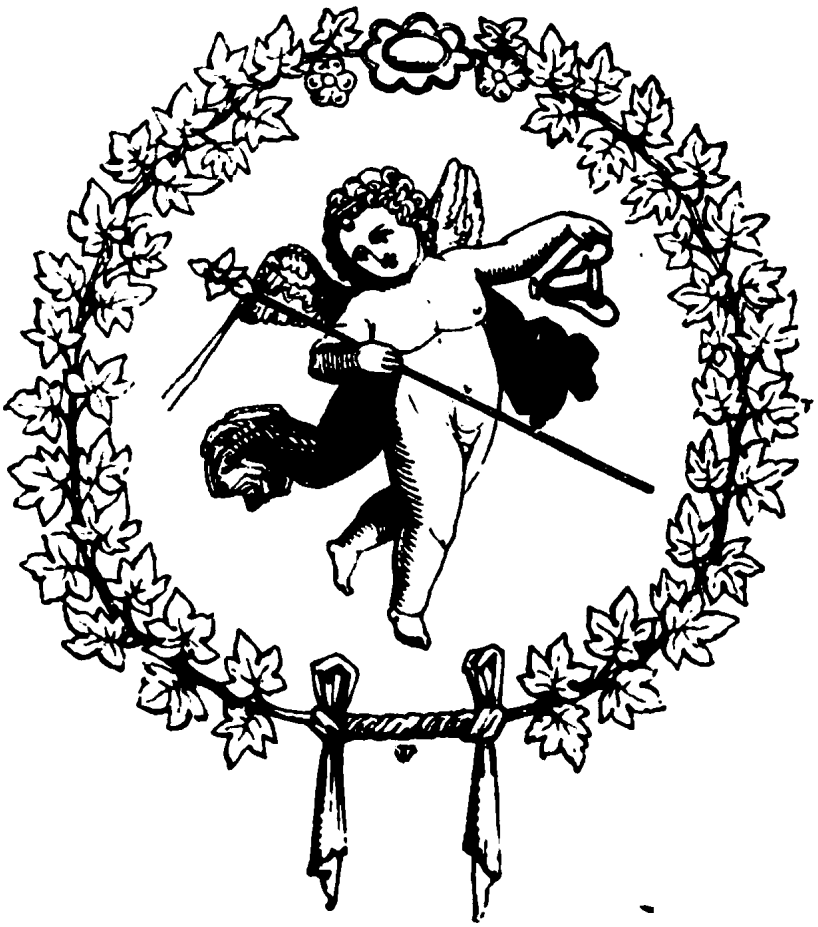

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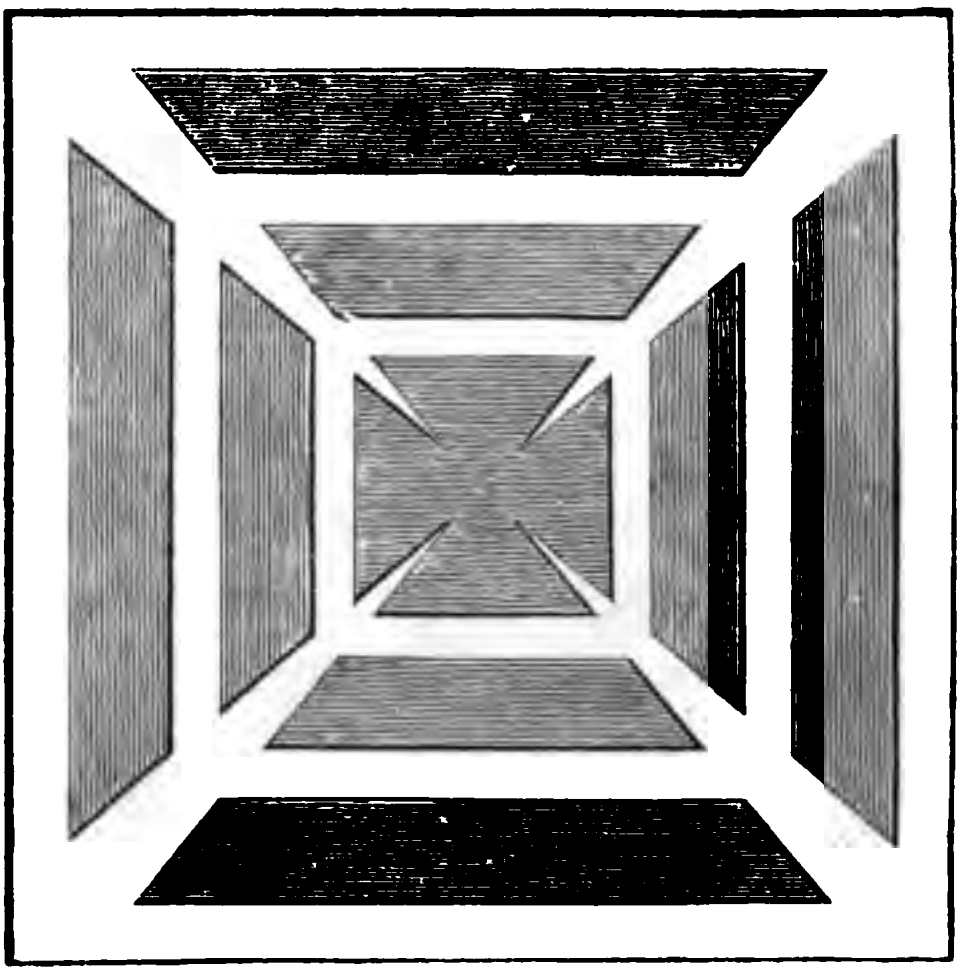

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PLAN OF A SMALL GARDEN

IN THE FORM OF A MALTESE CROSS.

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THE GARDEN.

LETTER I.

My Dear Harry, January.

Your request that I should send you a monthly journal of my garden, and give you instructions for the laying out and management of your own, gave me much pleasure. I shall indeed be happy to give you all the information I possess. My garden still continues my favourite amusement and occupation. As the season is hardly sufficiently advanced to make a mere journal interesting, I intend to devote this letter to the necessary instructions for the formation of your garden,

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and to give you the result of my experience on the subject. From my recollections of the shrubberies of ———, and from your description, I know exactly where the plot of ground allotted to you is situated. It is an oblong square piece, surrounded on two sides by the kitchen garden wall and the paling of the orchard, and, on the other two, by the plantation, which is irregular on the longest side opposite the wall. It is a delightful spot, and so well sheltered, that the tenderest of our out-door plants will live and thrive there. I rejoice at its being quite shut out from the rest of the garden, as this will enable you to give it a character as a whole, without its being interfered with by the arrangements of your neighbours. My opinion is, that as three sides of it are perfectly straight, you should make the fourth straight also, and then lay it out

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in formal beds, in the Dutch style, which is an excellent plan where there is but little space, and flowers only are intended to be cultivated; for though this method of laying out a garden supposes the intention of making each bed contain only one kind of flowers, yet I consider that it may be equally adapted for a mixed flower garden. I am, however, well aware of the beauty of the wild and irregular in the arrangement of pleasure grounds; but this, to produce a good effect, requires space; and, to be really beautiful, there should be inequality of surface, and the power of producing a variety of form, without confusion. It is also indispensable that the whole plan should not be seen at once, but this, with your little nook, you could never accomplish; I therefore recommend you to content yourself with neatness and regularity; conceiving your

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main object is to have as much room to shew off your flowers as possible. Now for the rules as to the making your garden—the irregular piece, which you take off to make the parallelogram, or oblong square, may be planted with American shrubs, which grow well in the shade, and will not be injured by being close to the plantations. As soon as you have given the ground a regular form, make a border three feet wide in front of the wall, which I propose you should cover with creepers, and such beautiful flowering shrubs as, in this climate, require to be grown against a wall for protection; and, I think, as show is your object, you will not mind sacrificing the two old peach trees, which cover it at present; its being towards the south, renders it invaluable. However ugly it may appear at present, you will be content with it, when it is covered with the

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flowers of the *Bignonia radicans*, or trumpet flower, the *Jasminum grandiflorum*, or Catalonian jasmine, whose large white flowers tinged with red far exceed the common jasmine in beauty and fragrance; the *Calycanthus precox*, which blows in the middle of the winter, and is so fragrant, that a single blossom is sufficient to perfume a whole room; the mule and common passion flowers; and many others that I can name to you.

After planting the shrubs, which are to grow against the wall, the remainder of the border must be devoted to the many delicate plants which require a warm situation, particularly tender bulbs, of which there are many—but more of these hereafter.

Let there be made a wide border under the unsightly paling you dislike so much, which, when covered with clematis, honeysuckles, Vir-

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ginian creeper, &c. and the border filled with roses and different shrubs, you will not be displeased with, but like it, I hope, as much as the sides next to the shrubbery.

Having now disposed of what you consider the *eye-sores* of your garden, and directed you to make a border round three sides of it, I proceed to the fourth side. I remember, you enter through the shrubbery on that side: at first, I hardly knew what to propose that you should do with it, because the trees that bound it are so large, that a border beneath them would be of little use; till I recollected the pleasure we all enjoyed, two years ago, in building an arbour, and my promise of making you a copy of the drawing my eldest sister made of us whilst at our work, which I will send in my next letter. Our arbour is now covered with creepers, the shrubs are

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much grown, and my sisters, when the weather is fine, frequently sit, and work, and read, there; so that I strongly advise you to build one on that side, as near the trees as possible; because, by planting a few evergreens round the seat, with some woodbines and trailing roses at the foot of the trees, you will soon have an arbour there. When I hear your determination on this point, I shall send you plans and instructions for constructing this most useful ornament to your garden.

Thus we have disposed of all the outside parts as follows—first the peat border, for the American shrubs; secondly, your ugly paling mantled over with creepers, roses, &c.; thirdly, your south wall covered with the more delicate and rare plants; and, lastly, on your most shaded side, an arbour.

The middle of the garden, which is the most

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difficult to arrange, is next to be considered. I am somewhat at a loss what to recommend you to take for a centre: I think either an oval or a lozenge, with little beds arranged round it, corresponding with its shape, best suited to a small garden; but I have lately seen one so very pretty, that I must describe it to you. The centre was in the form of a Maltese cross, round which a continuation of narrow beds, divided by walks, were placed; they continued the same pattern, the whole still forming the Maltese cross.

The best thing you can do, will be to draw on paper several designs of gardens, and then choose that which you like best, and think most suited to your situation: I have attempted to assist you in this, and send you two patterns. The dark parts are intended to represent the beds, and the white the

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gravel walks. I think, I should recommend No. 1, as it will suit the shape of your garden

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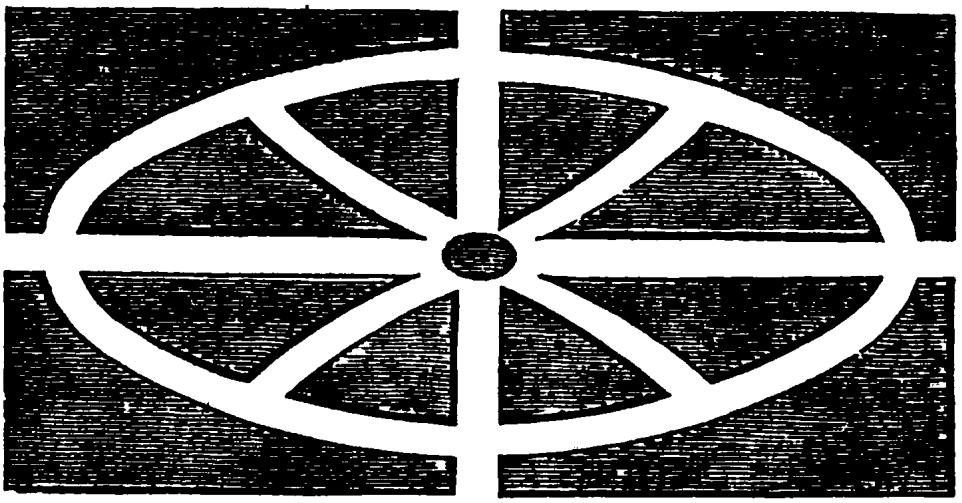

better than the Maltese cross; besides, the latter, to have a very good effect, should be cut out on a lawn, or, at least, have grass walks. After you have determined on your plan, mark out the borders with sticks, taking care that the smallest is at least two feet wide. The making the borders must be next attended to; and this must be done with great care and patience, or you will lose all the labour of planting. As much depends

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on the soil, examine well the nature of yours: if it crumbles easily, and appears sandy, you need only dig and enrich it with decayed leaves; but if you have a clayey soil to contend with, as I have in my garden, you must dig out two feet of earth, and put in a layer of brick rubbish, or very large gravel stones, the use of which is to drain off the water when there is much wet: this is quite necessary; therefore do not omit to do so, or you will lose your best plants in the winter: this happened to me, because I was too impatient to make my garden, and had no one to give me advice about it. You, of course, know that most of the plants grown in our gardens come from foreign countries, from countries that are warmer than England, and particularly from places where there is less rain. If, during the winter, when the plants are in a dormant state, the roots are

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too much soaked with wet, they get mouldy, and rot; they are also more liable to be injured when it freezes, by the water which is in the root becoming ice. The draining of the borders is therefore the first thing to be considered; after which, fill them with a mixture of light loam, sand, and peat or bog-earth, if you have it in sufficient quantity; if not, you must be contented with the loam, some fine sand, and a very small quantity of rotten leaves; you should allow the borders to remain a few days to settle, before you plant the roots, &c.

As to the border for American plants, the soil should be entirely sandy peat, or bog earth; but if peat be scarce in your neighbourhood, you may dig holes, three feet square, and fill them with it; in these plant the American shrubs, and you will find that they will thrive well. As rhododendrons and azaleas grow large, they should be planted at the back of

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the border, and not too close together: I should say that rhododendrons should be at least five feet apart, or they will soon become crowded, and spoil each other; this crowding is the great mistake of all young gardeners. You should always bear in mind, that in planting you must have "a prophetic eye," and look at what your garden *will be*, rather than what *it is*. The reason why the shrubs I have named are planted in peat is, because it is their natural soil, the ground they grow in when wild; and you will see that their roots are composed of a number of little fibres, not much thicker than hairs: peat soil being sandy, and not clinging, is therefore best suited for their small roots to wander about in, and to collect nourishment from the earth; for, if they were planted in a clayey sort of earth, you can well suppose their roots are not fitted to make way through so stiff a mass.

As I have made it a point that you should

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not plant your shrubs too close, you may think the spaces between them look bare and unfinished; in which case, you can fill it up, in the spring, with stocks or other annuals, or biennials, or the different varieties of English heath, which grow in your neighbourhood.

When the borders are filled, they should be edged, before you set about the walks. Next to Dutch box, thrift is the best plant to use for this purpose; for, though daisies, London pride, primroses, and dwarf periwinkle, make a pretty edge, yet some of these lose their leaves, and some grow too rapidly for a small garden; if, therefore you cannot procure the first, and dislike the second, I recommend you to take to your old work of twisting osiers, and to surround your beds with basket work, because it will cost only time and trouble, and you will keep your money to buy those plants you wish to have most, and

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which you cannot procure from the gardener. The edging should be put down with great care: nothing makes a garden appear more untidy than crooked lines; therefore do not spare labour; and make use of a string, fastened to two sticks, stretched along the part you are edging, to keep your line straight. To make your walks, (which should be of gravel,) you must dig out earth, and this, if it be good for any thing, strew on the borders, to make them higher than the walks, which ought always to be the case; and they should be shelving on each side, to enable the water to run off. At the bottom of the walk, you should put about six inches of brick rubbish, and on this about six inches of gravel, putting the coarser kind at the bottom. You will observe, that the drain of the walks will also serve as a drain to the borders, unless your soil, as I said before, be very clayey.

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After putting a coating of fine gravel at the top, and making the walks a little rounded, to throw off the water to the edge, they should be rolled. I ought to have told you before to make them wide enough to admit the roller, or you will not like their appearance in wet weather. I tell you much of what the gardener will perhaps do for you; but I think it right that you should know the reasons why these things are done, that you may see they are well done; besides, I hope, you will find amusement in learning them: there are very few ready-made pleasures. I am sure, my sisters feel far more delight in the nosegays they gather out of their own garden, with which they decorate the school-room, than the rich Miss Marsdens do from the magnificent productions of their papa's hothouses: the gardener brings into their drawing-room the fine amaryllis, passion-flowers,

and cactus, which he has raised with much trouble and cost; and after the young ladies have stared at them, wondered if they smell, and learned their price, they are thrown away, or forgotten. My sister Jane has long cultivated her garden with the greatest care: she knows the names, habits, and method of growing, of all kinds of flowers; and, remembering the trouble she has had with them, likes them the more. She has undertaken the management of the flower garden, which, owing to my mother's delicate state of health, was much neglected last year; and I am enabled now, through her kindness, to send you a larger basket of roots, &c. than my own garden would have afforded: it contains some very good shrubs, herbaceous roots, creepers, and seeds of annuals.

Before I tell you what to do with the plants I send, as you are quite a beginner, I

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had better explain the difference between *shrubs*, *herbaceous plants*, and *annuals*. The *shrub* is, in general, a low, woody, branching plant; such are the rose, jasmine, &c.; though there are many which grow to a great size, as the acacia, &c.; these are divided into *evergreen*, and *deciduous*, or those, of which the leaves fall off in the winter, and the stem survives; such, for instance, are the lilac and laburnum: all these are propagated either by layers, cuttings, or suckers, and sometimes by seeds. The root only of the *herbaceous* plant lives through the winter; the flower stem dies as soon as it has performed its duty, and is reproduced with the spring; such are the campanula, or bell flower, the Michaelmas daisy, and many others; and these are generally increased by dividing the roots, sometimes also by seeds and cuttings. The name

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of an *annual,* denotes the shortness of its life: sweet peas, larkspurs, mignonette, &c. are annuals; they are all raised from seed, though many of the scarcer sorts might be grown from cuttings. As for the *creepers,* they are for the most part deciduous shrubs, requiring the support of sticks, or trellis; and many annuals, as *Convolvulus major,* require the like support. To return to the basket: it contains a plant of *Jasminum revolutum,* the flowers of which are yellow, large, and very fragrant; a *Clematis Florida,* whose dirty white flowers appear at a distance like the passion-flower; and the scarlet flowered *Pyrus Japonica.* These are to be planted under your wall, and trained against it. I have sent them in pots, that you may wait till the weather is finer, before you plant them out. You may plant to run up a pole of your intended arbour, *Periploca*

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Græca, an elegant though not very showy climber. For the poles, I send plants of *Corchorus Japonica,* which will do well against them, and its bright yellow flowers will repay you soon for the trouble of planting, as they blow very early. It is a native of China; and, though it stands the cold of our winter, it likes a sheltered situation, as it blossoms when the weather is very unfavourable. The Virginian creeper grows very fast; its principal beauty is the bright scarlet hue of its leaves in the autumn. I regret that the only American shrubs I can offer you, are a *Rhododendron* and a *Kalmia.* Plant in the rose and shrub border the snow-berry tree, which is so called, because, in the winter, it is covered with large semi-transparent white berries:—this, I think, you will consider very pretty, and it helps well to make out a winter nosegay. Besides these,

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you will find, in the basket, a great many common herbaceous plants, for your other borders; and as the names are marked on all, I must refer you to the gardener, if you require any particulars as to planting. In my next, I will give the necessary directions for sowing your annuals, and answer any inquiries you may make; as I shall expect to hear from you of the safe arrival of the basket.

Ever your sincere friend,

FREDERICK.

LETTER II.

MY DEAR HARRY, February.

IF you have followed the directions I sent you in January, your garden is ready to receive the plants and seeds, which should be planted or sown in the course of the ensuing months.

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February.

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BUILDING THE ARBOUR.

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The edging, whether of box or thrift, should be made now, as a garden cannot be planted with any attention to regularity before this is done. In planting shrubs and herbaceous plants, and in sowing patches of seeds, I must request you to pay great attention, *First*, as to the height they will attain when in flower, arranging them so that the dwarf sorts may be in front, and the taller at the back. My beds usually consist of three or four rows of plants, each row nine inches apart:—in the first are planted pinks, white and yellow *Alyssons*, *Hepaticas*, primroses, varieties of cowslip and oxlip, snowdrops, and crocuses; in the second are stocks, sweet-williams, some sorts of campanulas, and peonies, &c.; in the third, scarlet lychnis, poppies, monkhood, and other tall growing plants. *Secondly*, the colour of the flowers should be considered, and great care taken to avoid placing two plants, whose flow-

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ers are of the same hue, together. *Thirdly*, you should attend to the time of their flowering, and, in a mingled flower-garden, contrive to scatter them about, so as to prevent one part of your border appearing without blossoms, while the rest is brilliant from the number of plants flowering in it. All this cannot be managed in one year: nothing but a little experience, and some care, will enable you to attain any thing like perfection in the arrangement of your plants, as to size, colour, and time of flowering. The roots, or patches of seed, must be placed at distances equal to the space between the rows, namely, about nine inches; the plants are not to be placed immediately behind each other, but exactly half way between, so as to allow of all being seen. But should there be a walk entirely round the bed, the tallest plants, of course, must be placed in the centre of it.

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Hitherto, I have said nothing about tools: it is absolutely necessary for you to have a small strong spade, a rake, a trowel, a Dutch hoe, a birch broom, and a wheel-barrow of your own, that you may not be perpetually borrowing tools from the gardener, which are, besides, too heavy for you to use with any degree of pleasure: these you may buy by degrees; beginning with the three first, as being the most wanted.

I should recommend you to plant, about the middle of this or the next month, a few evergreen shrubs, such as *Laurustinus*, holly, arbutus, Portugal laurels, and *Aucuba Japonica*, (the golden-leaved plant) round the place where you intend to build your seat, or summer-house. These are all the shrubs of this description that I should think desirable for a small garden; and I must caution you against placing any one of them in the middle of your

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flower beds, as is usually done by young gardeners, who are not aware how soon they grow too large for the place they are planted in, and shade the border; and besides, in the summer, they have a very ugly dingy look. The only time at which evergreens appear to advantage is during the winter, and even then they should be planted in masses, which cannot be done in your garden. Flowering shrubs, which have grown too luxuriant or straggling, should now be cut and tied up, their suckers taken away (which may be planted where they are most wanted to fill up vacant spaces,) and the earth should be dug neatly about their roots. if, however, they stand in a bed, in which there are herbaceous roots, it is better to use a fork than a spade, as it is less likely to injure the roots that have not yet appeared above ground. You will find your new plants require prun-

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ing in a short time, particularly the quick growing sort; on this point, perhaps, you had better consult the gardener: I doubt whether I could give you any good general rules for managing this part of the gardener's art: for there are some trees which do not bear pruning at all; such as the fir, larch, cypress, and cedar tribe: other plants make their bloom buds on the old wood, as the shoots of the preceding year are called; such as the double-blossomed peach, the syringa, &c.; and thus you must be careful what you cut away. In general, the best plan is to cut off all the straggling shoots, and to shorten them to about half the length you wish the plant to grow; as, whenever a tree has been cut, it will shoot out with greater vigour, provided it be in health; and, indeed, cutting a shrub entirely down is often resorted to, when it appears to be dying, after all other

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means have failed to restore it to health. Besides shortening the branches, you should observe if there be any cross branches, that rub against each other; in which case, generally, one of them ought to be sacrificed; but, on these points, little can be learned except from experience. I shall, in a future letter, give you a short account of the formation of the bloom and leaf buds: at present, I must confine myself to instructing you as to what ought to be done in your garden this month; and, therefore, I do not proceed so methodically as I otherwise might. Turf is generally laid about this time; but, from the size of your garden, I do not suppose you will require any. I ought to have told you, while I was writing on edgings, that a border of turf, six inches wide, cut very close, makes a very neat edging, but more trouble is required to keep it in order than box,

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and it does not answer well except where the beds are very large, and the edges consist chiefly of straight lines: the corners of turf are apt to be trodden down and worn out.

It is in February, that the seeds of auriculas and polyanthuses should be sown in boxes; but these and all the flowers usually called *florists' flowers*, among which are carnations, tulips, anemonies, &c., are so difficult of cultivation, that I advise a novice in gardening to be contented with possessing a few of the hardiest auriculas and handsomest polyanthuses in his borders, and not attempt to grow the finer sorts. I begin in this month to sow what are called *hardy annuals*, in patches, to remain in the borders where they are sown; such as lupins, sweet-peas, candy-tuft, Virginian stock, and pink and yellow hawk-weed: to do this, take away a little of the earth

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from the place where you intend sowing the seed, and after making the place quite even, sprinkle a little seed on it, and cover it over with fine light mould; the seeds must be sown deeper in the earth, according to their size: lupins and seeds of the same description ought to be put in separately: a ring with six lupins planted at equal distances of three inches will make a large patch.

The places where seeds are sown should, I think, always be marked by sticks, having the names of the plants on them; because, in sowing the second time, it is proper to know what you have in the ground, that you may not put flowers of the same colour too near each other. The sticks are to be prepared in the following manner: some laths must be cut into pieces six inches long, and made pointed at one end and smooth on the side, on which a small

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Hellebórus Niger.

Christmas Rose.

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Pub.d May 1831 by J. Harris S.t Pauls Church Yard

quantity of white paint is to be rubbed with a bit of flannel, as thin as possible; the rain will not efface what is written with a black-lead pencil while the paint is wet. Herbaceous plants may be marked in the same manner, only that part of the stick which is put into the ground ought to be dipped in pitch, to prevent its decaying during the winter.

You may now divide and replant the roots of any hardy herbaceous plants that are too large; this is therefore the season to ask for such roots as the gardener can spare.

The only flowers that have yet made their appearance this year in my garden, are the Christmas rose, yellow aconite, and a few anemonies and snowdrops. The yellow aconite is one of the earliest of the spring flowers; it is very gay and common. I almost recommend you to make an edging of it, by putting a row

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quite close to your box: by May it will have produced its seeds, and the plant will die down and remain at rest, till again, at the end of nine months, it is called into action by the early spring. This aconite (the common or popular name of which I do not know) is, I believe, a native of the countries where the snow lies long, and, on the melting of which, the plant and flower come forth at once and live through the short summer, awaiting to be again buried during months of snow. It is singular, that variation of climate should not vary the habits of plants; but, although plants that come from warm countries, are, by degrees, made to bear the cold of this climate, still the alteration made in what may be termed the habits of the plant, is very small. You must hope but little on this subject, which, however, you will, I think,

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Eranthis Hyemális.

Winter Hellebore, or Aconite.

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find very interesting, when you know more about gardening, and grow in the open air some of those beautiful plants, which have, till very lately, been entirely confined in our stoves, but have been of late years successfully cultivated, during the summer, in our gardens. But I must now wish you all possible pleasure in your new amusement, and subscribe myself,

Yours very sincerely.

LETTER III.

My Dear Harry, March.

You complain of your garden being dreary, and expect a flourishing account of mine: this is a bad sign; it seems that you are not contented with your own, and begin to covet

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your neighbour's. I am almost inclined to send you a long letter on this subject. Do you then suppose that I have a secret method of flowering lilies and roses in the open ground in March? As your crocuses, hepaticas, and primroses are in bloom, your garden must be nearly as gay as mine is; for, besides those I have named, I can only boast of having in flower a plant of white alysson, which is in a sheltered bed, and a little plant or two of English heaths in the peat border. But, perhaps, as you consider the bright patches of crocuses make the rest of your garden appear more desolate than if they were not there, you may prefer, another year, disposing them in the same manner that I have planted mine; I must therefore give you a description of my *succession bed,* as I name the border into which I have collected all my Spring

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flowering bulbs. It is diamond shaped; at each corner I have placed anemonies, and hepaticas, of the last of which I possess five varieties, the double and single blue, double and single pink, and single white; but as the single white is not very showy, and does not grow freely, I have not given it so distinguished a place as the others. Entirely round this diamond, and close to the box edging, is a row of yellow aconite, the seed of which was sown there last June; and next to that one of double snowdrops: then comes a row of the early crocuses, which are called *cloth of gold*, and have the merit of opening when there is no sun, which is not the case with the other sorts: after these, there is a row of blue crocuses, then one of white; rows of the late flowering yellow and dark blue, follow. Next to the crocuses, are three rows of hyacinths; and the middle is filled with early tulips,

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which, though not of the finest sorts, make a very good show when in blossom. You are, perhaps, surprised at my possessing so many bulbs, as I have but little money to spend in purchases: as I think the greatest pleasure consists in raising plants oneself, I did not buy these, or at least only a few, and I have been some time collecting them. The different sorts of crocuses, I have long had; and as they increase very rapidly, a good stock is soon obtained. The hyacinths are those which have been forced in pots, and given to me by the gardener, year after year, as they were too much weakened to force again. I, therefore, plant them in good soil, that they may recover strength, after the unnatural way in which they have been treated. The tulips were mostly offsets, obtained at different times, and which in two years become

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good flowering roots. Opposite to this bed, is one, of the same size and shape, which I have filled with scarlet anemonies and blue hyacinths, or wild scillas, dug up from the woods and hedges. These two flower together, and the colours contrast admirably; the idea was taken from a bed of red anemonies and dark blue hyacinths; but, as I was unable to buy the latter, I substituted the blue scilla which abounds in our woods. These two borders are the pride of my Spring garden. In order that the anemonies should flower at the same time as the scillas, they should be planted in October. The aconites, snowdrops, crocuses, and hepaticas, are all that have flowered as yet; but the hyacinths are so very forward, that I expect they will be in bloom in April; I shall, in my October Letter, tell you how to plant these.

I have been extremely busy since I last

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wrote to you, digging some borders, which were neglected last autumn. I have had many herbaceous plants to divide and replant, and am now going to make a bed for some ranunculuses, which I have raised from seed. As the spring-planted ranunculuses flower very late, they must be planted in a shady border, as the sun in July is often too strong for them. Since you have got some roots, and are determined on flowering them, I shall copy from a book on gardening, the simplest method of making a suitable bed; but, as I said before, I do not recommend you, whilst a beginner, to cultivate what are termed *florists' flowers*. When you know more on the subject in general, if you feel inclined to grow carnations, ranunculuses, auriculas, &c. I should advise you to buy "Hogg on the Carnation," which is a very amusing and very instructive little book.—But

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to continue my instructions: the bed for ranunculuses should be from eighteen inches to two feet deep, and not raised more than four inches above the level of the walks, to preserve the moisture more effectually: at about five inches below the surface should be placed a stratum of two-year old rotten cow-dung, mixed with earth, six or eight inches thick; but the earth above, where the roots are to be planted, should be perfectly free from dung, which would prove injurious rather than beneficial, if too near them. The fibres will draw sufficient nourishment from it at the depth mentioned; but if the dung were placed deeper, it would not receive so much advantage from the action of the air, which is an object of consequence. The surface of the bed should be raked perfectly flat, and the roots planted in rows, at the distance of about five inches from

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each other. It is better to plant in shallow trenches, made nearly two inches deep, than to make holes for the reception of the roots. A little clean coarse sand should be sprinkled into the trenches, and the roots should be placed with the claws downwards, from three to four inches asunder, according to their size. When the trench has received the roots, it should be carefully filled up with the same earth that was taken out, so as to cover the root exactly one inch and a half. It is not usual to plant ranunculuses for show, after the middle of February. I have planted them in patches in the borders in March, and they flowered there very well; so that, if you think the preparing the bed too troublesome, you may put them in one of your shadiest borders, and you will have a good chance of their flowering tolerably well.

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As it will require some time to get a good collection of herbaceous plants, you must be contented, this year, with annuals; and you will find that you can make your garden quite as gay with the commonest of these, as with many of the rarer sorts: continue therefore sowing the following seeds, in the course of the month —sweet peas, pink and yellow hawkweed, flos Adonis, larkspur, Venus' looking-glass, mignonette, convolvulus minor, *mimulus lutea* or monkey flower, Mediterranean stock, and lavatera, or any other hardy annuals.

In order that the half hardy annuals should blow early, it is usual, about this time, to sow them on a gentle hot-bed, or in pots placed near the light, in a garden frame, or in a green-house; but, unless you can transplant, or prick them out into another frame, when they come up, or pot them, about four in a pot,

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and keep them in the frame, or greenhouse, till May, as they cannot be safely planted out in the open borders till then, it is better to wait till the end of the month, or the beginning of April, before you sow the seeds of ten week stocks, Indian pinks, marvel of Peru, French and African marygolds, China asters, &c. If you have no lights, you may, for the purpose of raising the half hardy annuals, make a bed of a little hot dung, and put some mould on it; before you sow your seeds, bend over it some hazel sticks, in the form of hoops, and throw a mat over the hoops, at night, to protect the seedlings from the frost, giving them the full benefit of light and sun in the daytime: but as this will be a troublesome operation, I should advise you, this year, to apply to the gardener for all the common half hardy annuals, as he will, of course, have a hot-bed

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to grow them on. I will send you, in May, seedlings of the newest sorts of annuals, which have lately been introduced into this country. I have told you how to raise them, in case you wish to do so yourself.

While on the subject of sowing seeds, I must advise you to sow, some time in this month, a bed with perennials and biennials, to have them ready to plant out in the autumn; the best are wallflowers, rose campions, sweet williams, Canterbury bells, foxgloves, French honeysuckles, scabious, and Chinese hollyhocks; the three latter will probably flower this year. When the plants make their appearance, the bed must be thinned out, and the seedlings, as soon as they have five or six leaves, should be planted in the borders where they are to remain. But beware of crowding your garden by planting too many of them, as they will

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all grow large and tall, except the wallflower. Consider also, when you plant out seedlings into the borders, the size they will be when full-grown, rather than their present; and allow sufficient space for them to attain that size, without injuring the plants that may be near them.

You may plant more American shrubs and evergreens this month: they must be taken up with good balls of earth attached to the roots, that the smaller fibres may be disturbed and broken as little as possible. You may continue also to transplant rose trees, and to take suckers from them, in order to make new plants; taking care, however, that the suckers have roots, otherwise you will not succeed in removing them; or it will be long before they recover. I hope to hear that you are better pleased with your garden than

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when you last wrote, and that you think it will soon be as great an amusement to you, as mine is to, dear Harry,

Yours affectionately.

LETTER IV.

My Dear Harry, April 6th.

When I recommended you to lay out your garden in the Dutch fashion, I forgot to remind you, that neatness is the peculiar character of the Dutch, both in their gardens, and their houses: I hope this hint will not be thrown away, especially as you will soon find that sowing and planting are not the only employments of a gardener: weeds will soon begin to grow; and as it is only the sluggard who

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has weeds in his garden, I hope none are growing in your little plot. In so small a garden as yours, the weeds must be pulled up by the hand, as fast as they make their appearance. I do not at all approve of hoeing in a flower garden; it may be done in a shrubbery, or where the borders are filled with coarse growing herbaceous plants, or where they are so wide as to make it impossible to weed them without trampling down the earth. As soon as the beds are weeded, you may loosen the earth between the plants a little with a hoe, previous to raking the border: raking, however, requires some care, and will be better learned by watching a gardener perform this work, than by any instructions I can give. When a border is well raked, it is perfectly even and smooth, and no scratches of the rake are left behind. I leave it to your

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own discretion as to how often it is necessary to weed and rake: the oftener you do this, of course the neater your garden will be. I find, by always pulling up the weeds as fast as they come through, that (though I have a large piece of ground to take care of) it is not necessary to do it as regularly as I do sweeping, which should be done once a week, or rolling, which ought never to be neglected after a shower, as soon as the gravel is sufficiently dry to prevent its sticking to the roller.

When your herbaceous flower stems begin to shoot up, and appear to require support, they should be tied with twisted bass to sticks, of different lengths, according to the height the plant will attain; the bass being previously soaked in water, to make it tough.

You may continue to sow both hardy and

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tender annuals, to keep up a succession of flowers: this is an important point to attend to; it will require some experience and forethought, to prevent all your flowers being so sown or planted, as to blow all at one time.

At the end of the month, you may begin to plant out any half hardy annuals that are ready; or, if your soil is stiff, you may pot them, three or four in a pot, and keep them in a frame, green-house, or sheltered with hoops and a mat at night, and turn them out after they have rooted well and begun to grow; by which means, they will not be so much checked by the change, as in transplanting them at once from the hot-bed into the open ground. This reminds me that I ought to tell you it is necessary to pay great attention to keeping the roots of plants that are

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Orobus Vérnus.

Early Flowering Orobus, or Bitter Vetch.

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J. Bell May 1st 1790 by J. Harris St Pauls Churchyard.

grown in pots well drained; to effect which, a piece of broken pot, or tile, is placed over the hole at the bottom of the pot, and brick rubbish, broken small, should then be put in so as to fill up a fourth of it; but all this care is not necessary in potting annuals which are in the course of a few weeks to be transplanted into the border.

My garden promises to be gay very shortly: the hyacinths are beginning to burst; the violets, white alysson, double primroses, (of which I have the common yellow, the purple, the white, and the crimson,) wallflowers, daffodils, and crown-imperials, are in flower; some other more tender plants, I expect, will blossom before the month is past: among these are the common *pulmonaria*, or lungwort, with its pretty variously coloured bells, some pink, some purple, and some dark blue; the Canada

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columbine, a rather scarce plant, *Fritillaria* of different kinds, *Orobus vernus*, a small pink pea, to my taste, the prettiest early herbaceous flower we have, and the beautiful Persian iris, which appears to some people to possess a perfume as sweet and powerful as the violet, while to others it is perfectly scentless. *Sanguinaria Canadensis* will flower in the peat before the month is over: it is a plant I admire, chiefly on account of the leaf, and because all plants in blossom at this season of the year are valuable.

One of my greatest favourites is the hearts-ease, of which I have twelve varieties. I have planted an edging of these, (by dividing the patches into separate plants, round a border I lately made for rock plants, in a very dull corner of my garden, where nothing grew before but dark brown trefoil. With the aid of a few

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Iris Persica.

Persian Iris.

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Pub.d May 1831. by J. Harris. St Pauls Church Yard.

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large stones, clinkers, and flints thrown carelessly about, and the interstices filled with fine mould, and planted with different sorts of dwarf cistus, houseleeks, periwinkle, the small variegated leaved sort of snap-dragon, that you must have seen on old walls, &c. I have made a very pretty addition to my borders, in a part of my garden that was formerly very ugly, and on that account always neglected.

It is usual for persons who have hyacinths and tulips to tie them up with short sticks, as soon as the flowers begin to be top heavy. When you have a bed of fine hyacinths, you must protect them from sun, rain, and wind: the sun not only spoils the colour of the blossoms, but shortens the time of their continuance in flower. The rains and winds of this month are equally destructive: in-

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deed, one of the April storms will sometimes strip half the bells off the flower stalks, and snap off some of the heaviest and finest blossoms; so, if you wish to make a good show, and to double the duration of it, you must build a cover over them. The great tulip and hyacinth fanciers have a temporary awning for this purpose. The plan I have adopted is cheap, and as follows. Get stakes four feet long; stick a row of them into the ground, on each side of the bed, eighteen inches apart; drive them a foot into the ground, and tie rods between them, to reach across the bed, which will support the coverings; these coverings may be made of any cheap material, as coarse calico, or old canvass, or a mat thrown over will answer the same purpose; but you must take care to remove this covering at all times, except during the

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full sunshine, or when there are driving winds or rains; if you do not, you will deprive your flowers of light; and as all vegetable colours depend on light, your flowers, without it, will be pale; and the *instinct*, if I may so call it, of flowers leading them to seek the light, its absence causes them to expend their strength in growing tall in search of more light, and then they become what is termed *drawn*. You will soon learn this property of plants: and observe that those grown in the shade are always both paler and taller than similar sorts grown where the light is admitted freely, and that the colours of plants, particularly green, depend on light, and light only: this you may soon prove, by putting a pot over any growing plant, and you will find that it will lose its green colour; but when the light is again admitted, it will recover it. Hence

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the common process of blanching or whitening endive for the table by tying up the plant with bass, so that the light is shut out from the inner leaves, putting pots over sea-kale, and covering up celery with earth; all of which, being deprived of light, soon become white.

Among the tender annuals, which should now be sown, are cockscombs, tricolours, globe amaranthus, ice plants, stramoniums, and balsams. The three first named are too tender to be planted out in the borders, till very late in the season, when they are in flower, and should not therefore be sown by any one who has not a green-house or frame to grow them in, as they cannot be put out of doors till they are nearly full-grown. You might sow some seed of balm of Gilead, or raise some from cuttings: it is a perennial plant,

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and very useful to plant out in May, as it grows freely; and is used for the green part of nose-gays, on account of the delightful fragrance of the leaf. The green-house *Verbena* also may be grown out of doors for the same purpose: against a wall, it will live during the winter. I must tell you, it is a deciduous plant, that you may not imagine it to be dead when you see it stripped of its leaves.

May is the month in which carnation seed ought to be sown. I have already said, that it is necessary to be what is called a florist, in order to grow these flowers in perfection; but, nevertheless, I have been so much amused by raising varieties of them from seed sent to me from Berlin, where they are celebrated for carnations, that I cannot help giving a short account of my method of managing them; it is very simple.

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The seed is sown at this season in pans, and set near the light in the green-house, or in a frame, or even in the open air, if you have neither. As soon as it comes up, the pans are taken out of the green-house, and placed under an east wall, and sufficiently watered in dry weather. In June, the seedlings are planted in a bed of fine light mould, in rows, six inches apart, and kept well watered in dry weather. In the autumn, hoops are put over, (in the way I have already directed with respect to hyacinths,) that they may be covered over with mats in frosty or wet weather, the wet being quite as injurious to them as the frost. In the beginning of April following, every other one may be transplanted into the borders, and the rest left to flower in the bed.

In the course of the next month, I shall

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April.

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THE YOUNG GARDENERS.

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send you a basket of plants with my letter, but I shall probably have so much of my spare time taken up with digging up the plants I send, naming and packing them with moss, that I shall not perhaps have time enough to write you so long a letter as usual. As you desired to have two or three sketches of our garden, I have sent you one; and you may expect to have one occasionally, when I have time to copy it; for I cannot yet draw from nature well enough to present you with any of my own.

Ever your affectionate friend.

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LETTER V.

My Dear Harry, May.

You will receive with this letter a basket, containing some half hardy annuals, and green house plants. I also send a few roots of Dahlias, marvel of Peru, and *Commelina cœlestis :* these roots were taken out of the ground in the autumn, before the frosts set in, the earth was shaken from them, and they were placed on a shelf in the green-house during the winter. You must treat them in the same manner if you wish to preserve them for next year : a closet or cellar, if not too damp, will do equally well. They may now be planted in the ground ; and if you want more Dahlias, or marvel of Peru,

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Commelina Celestis.

Sky-blue Commelina.

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you must propagate them, by taking off cuttings, with a small piece of the root, called the *tuber*, attached to each: these should be put into pots, and set in a frame, or green-house, till they have struck; and if you can crib a fortnight's birth for them in a corner of a cucumber bed, they will strike root much quicker; and they may be sooner planted in the open ground, so as to flower this year. If, however, you strike them in the hot-bed, you must put them into the green-house, to harden, as it is called, that is, to make the change of temperature less violent before you plant them in the garden. If you took them out of the hot-bed, and put them immediately into the ground, the sudden and great change would almost kill them. These cuttings will flower the first year, quite

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as well as the old plants; and I think you will find this the best month to take the cuttings.

Among the annuals I send, are three new sorts, which have been lately introduced from North America by a collector: pray give them the best places under your wall, and save the seed with great care. They are marked *Clarkia pulchella, Escholzia Californica* and *Ænothera. Lindlyana, Escholzia* cannot properly be called an annual, because its root, if taken up and kept during the winter in sand, will flower again when replanted in the spring; or it will live in a dry situation through the winter. Its beautiful deep chrome yellow flowers are not unlike those of the horned poppy, which I have seen on the sea-shore.

I advise that you plant out the green-house plants which I have sent, in your warmest bor-

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Eschscholtzia Californica

Californian Eschscholtzia

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Œnothéra Lindleyana.

Lindleys Œnothéra.

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der, where they will flower far better than in pots: you must take cuttings from them, whenever you see any fit, which will be when the shoot has attained its full size. These cuttings must be kept in a green-house, or cold frame, during the winter: you will find it better also to take cuttings of those geraniums and green-house plants which you plant out, than to take up the old plants, as they never, in my opinion, thrive when confined in pots, after being allowed to grow freely, which they do when planted in the borders; besides, the cuttings do not occupy half the space of the old plants. The sorts I send are quite common; and should you not succeed with the cuttings, you will replace them, next year, for a few shillings: the prettiest plant among them is *Calceolaria rugosa*, which will be covered all the summer with bright yellow flow-

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ers, which appear at first sight like little balls, till, on examining them, you see the reason why it is called *calceolaria*, or slipper wort: you need not take cuttings of this plant till the autumn. You will admire also the *Phyteumia*, which is very nearly allied to the tobacco plant, and is commonly called white tobacco. You will find two kinds of *Pentestemon*, and *Lychnis coronaria*:—this is a most splendid flower, and I should recommend its roots to be taken up in the autumn and potted, as it is an herbaceous plant, and cuttings of it may be struck, next spring, when it shoots up. I think you will be pleased with the pretty purple *Verbena aubletia*; but the very eye of the packet is the *Verbena melindris*, its bright, deep, rich scarlet surpasses even the best geranium's colour: it is nearly a new plant, but it grows as freely as grass: every slip you stick

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Lychnis Coronaria.

Chinese Lychnis.

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into a pot strikes root and soon flowers: it will not stand the winter any more than the *Verbena aubletia;* so that you must, if you do not sow seeds, plant some cuttings in pots in the month of August, and keep them in a green-house through the winter.

There is in the basket one plant of *Cheiranthus tristis,* or night stock, which, when you see it first open, you will wonder why I, who profess to grow showy flowers only, should have sent it, as its small, dirty-looking flower will not appear to have the least merit: you will smell it; and if it should happen to be morning when you do so, you will feel tempted to root it out as being both ugly and scentless; but have patience till the evening, and you will find its perfume as extraordinary as it is delicious: it is one of the freest flowering plants I know, and will not leave off till killed

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by the frosts; and I think the more you gather the blossoms, the more it produces.

This is not the only flower which emits no odour during the daytime, though it is the commonest of this description, and the sweetest, excepting always the pretty *Erinus lychnidea,* the scent of which resembles vanilla. This, however, is a green-house plant, and is difficult to manage, being what gardeners call *miffy;* which means, that it suddenly dies, without any apparent cause; though I believe the cause to be too much water. I planted out the only one I had, last year, in a warm border, after it had flowered in the spring; and it seemed to like the treatment very well, as it flowered again in July: it is not, I regret to say, so easy to raise from cuttings as most green-house plants.

As I have mentioned making cuttings seve-

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ral times in this letter, I ought to give a few directions on the subject. In the first place, all cuttings should be made with a sharp knife, exactly below any joint from whence leaves spring, as it is from these joints that the roots proceed. Next, you will find the wood of some plants, such as roses, &c.; and, indeed, I believe, of most shrubs, requires to be what is termed ripe, that is, to have attained its full maturity, or growth, before it is fit for cuttings; while again, in others, as heaths, &c., it is impossible to strike cuttings from any thing but the young tender shoots. I know no rule, by which I can tell you how to distinguish between those plants which require to have the cuttings taken from the old or from the young wood, except that if the wood, when mature, is very hard, it is found not possible to make

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it strike roots, except in a young state: these are exemplified in the case of heaths, where the wood is extremely hard; and in the case of roses, where it is soft and full of pith in the middle.

The pots, in which cuttings are to be struck, must be well drained, in the manner I have before directed; and as many cuttings may be put in, quite close to the edge of the pot, as it will hold without crowding them, if they do not require being covered with a small glass, which is only necessary for cuttings of very tender plants, heaths, or such as are made very early in the spring; in which case, they are put close together in the middle of the pot, and a glass put over them. Very little water need be given them, enough only to keep the cuttings alive, as more will cause them to rot: they require also to

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be shaded from the sun, and yet to have plenty of light; they ought to be potted off singly in small pots, as soon as they have taken root.

As almost all green-house plants will strike during the spring and summer months, it is not advisable to defer taking cuttings till the autumn; because, in most cases, the young plants would not be sufficiently established in the pots before winter; and they ought to be kept from growing during that season, because nothing weakens plants so much as growing when they should be at rest: this you must have noticed in the case of common flowers that are forced, or brought into flower early in the spring: for they require a full year to recover their vigour.

While on the subject of propagating green-house plants, I must recommend to your

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notice a book,* which, when you can afford to buy it, and have a little more experience, you will find very useful as a manual, particularly as it will inform you how to strike each different plant by name; and is one of the few books that are of much use to a person generally fond of flowers: with this, and a little experience, you will soon become a tolerable gardener.

My tulips will soon be in full bloom and beauty. Besides jonquils, I have *Muscari moschatum,* or musk hyacinth, the flower of which is not pretty, but makes amends for its want of beauty by its fragrance. In the peat border, I have a beautiful and rare kind of *Uvularia.* The cinnamon and China roses are beginning to open: I have also some colum-

* Sweet's *Botanical Cultivator.*

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bines, yellow alysson, and *Anemone pulsatilla*, or Pasque flower, an English plant, and very beautiful; besides several varieties of the *Anemone hortensis*, or scarlet anemone; of these last I have a whole row, and their scarlet heads afford the idea of a line of soldiers. I could name a few other plants, either in flower or just bursting; but I only know their Latin names, and I fear to tire you with a list of them.

If you have any Indian pinks, or stocks, that have been preserved in pots during the winter, you ought, even perhaps before this, to have planted them into the borders. Continue also to plant out such tender annuals as are fit, and endeavour to do so on a gloomy day; or, if the sun be powerful, shade them with a flower pot, which you must take off at night, or when it rains: they must also be watered till there is

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a shower; after which, I should think, they will not require it.

If at this time you sow some of the half hardy annuals in the open borders, they will flower late in the autumn, if the season be at all favourable. The best and most showy of these are Indian pinks, Marvel of Peru, French and African marygolds, *Chrysanthemum tricolor*, and *Persicaria*. Put in also every month till July, where you have room, a few seeds of common annuals, and they will flower even as late as November.

I think that, what with weeding, raking, tying up flower stems, planting out what I have sent you, and keeping them watered till the first shower, you will have more than enough to do, till you hear again from,

Your's, very sincerely.

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LETTER VI.

My Dear Harry, June.

It will now be time for you to take up those bulbs, of which the leaves are nearly decayed. I can fix no particular day for this operation; because, as the bulbs flower at different seasons, so the leaves will decay in like manner; but the general rule is, to take them up carefully, as soon as the leaves have turned yellow, and to lay them under a south wall to dry and ripen; taking care to cover them with fine, dry, sandy earth, in layers, so that they may not touch each other. When the leaves are quite decayed, the bulbs must be removed, and spread again to dry under shelter of a green-house, or in a room; and,

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finally, after cleaning them from the dirt, take off their old coats, or skins, and put them away in bags, or drawers, in a cool dry place, till they are wanted for replanting in the autumn.

I must here explain why bulbs are taken up every year: the great object is, in this, as in all other operations of gardening, to imitate Nature; to make the existence of foreign plants, as near as it can be to what they enjoy in their native place. Tulips, hyacinths, and most of those bulbs which are taken up, come from countries where the whole summer is dry, and in winter the ground is covered with snow; the spring rains alone call them into life and flower. Travellers describe whole regions in Persia as being covered in the spring with enamelled carpets of scilla, (hyacinths,) tulips, and other bulbous

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plants: long drought succeeds the rains of spring, the leaves dry away, and the plant rests again under the dry earth till the following spring. As, in our country, they can have no dry earth naturally to rest in during the summer; the best imitation of it is to take up the bulb, which would otherwise be rotted by the summer rains, or caused to grow in the autumn; in which latter case, the plant would not flower in the spring, as the flower stalks would be killed by the wet and cold of winter, before it came to the surface.

There is another point, against which I must guard you, namely, not to cut off the leaves of tulips, hyacinths, and other bulbs, whilst green. This is often done by ignorant gardeners; and the plant is either killed, or injured for a long time. You will easily understand the reason of this; nature having provided, that, in the very

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earliest of the spring, the plant should throw up its leaves, and, soon after, its flower stem: it has no time to lose. When the spring goes, the rain for the year is at an end; and there is, as we have just seen, no time for the formation of the flower and the roots in early spring: therefore, as soon as the tulip, or hyacinth, has blown, new force is collected from the sap in the long green leaves, and the rudiments of the flower and leaf for the next year are formed in the heart of the root, where they lie dormant through the winter. Consequently, if you cut away the growing green leaves, you destroy the means of making the flower and leaves for the next year; and you might almost as well at once root up the plant. This applies to crocuses, lilies, &c. You must not, therefore, in your taste for neatness, tear away any green leaves of bul-

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bous roots, or your future prospects of bloom will be blighted. If you wish to convince yourself, by experiment, of what I tell you, as, indeed, you should do, in all things relating to natural history, you have only to cut in two a hyacinth root in July, and you will then see the rudiments of the leaves and flower already formed for the succeeding year.

But to return to my directions. I must advise you now to make pipings of pinks, if you can procure any good sorts, or to make some, at any rate, from your own; as these plants require to be renewed annually, in order to preserve their colours, and to procure fine flowers: for this purpose, dig a bed of rich earth, half a foot deep, the size of the hand-glass you intend to use, and sift the mould through a coarse sieve; press the mould firm, and set the

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hand-glass on the bed to make a mark, that you may not plant any of the pipings beyond where the edge of the glass comes; then take the slips from the plants, pare a little bit off at the hard end, and cut off a few of the bottom leaves: it is usual also to cut off about half an inch from the top leaves; but, as I have shewn that plants receive nourishment from their leaves, the most scientific gardeners consider it wrong to do so: after this, with a small pointed stick, prick them into the bed, about an inch apart; water them gently, but well; this settles the earth round them tightly, (and if it were not done, the air would get to the wounded part of the plant, dry up the juices, or sap, and prevent the formation of the new root:) then put on the hand-glass, so close, that no air can get in; let them have strong sun heat, but no air till

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they begin to grow: water them plentifully, with a fine rose to your watering-pot, and they will strike quickly.

If you have more room under your hand-glass than you require, you may put in some cuttings of China and moss roses, or any other sorts of roses which will strike at the same time. Yet, if you have more than one hand-glass, it is better to keep the pinks separate. Carnation cuttings will strike in the same manner; and so will scarlet *lychnis*, double rockets, rose campions, double wall-flowers, sweet-williams, yellow and white alyssons, and Indian pinks. Slips of all these plants strike better than cuttings: by slips, I mean the small branches of the plants slipped or pulled off at the part where they grow on the main stems, or stronger branches; in all cases, a small piece should be cut off the hard end

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with a sharp knife, before the slip is put into the ground.

You will find much trouble now in keeping your garden as neat as a Dutchman's, unless you are very active in sticking and tying up such herbaceous and annual plants as require it; and in cutting off old flower stems and broken shoots. The sweet peas should have branching supports, and the major convolvuluses long slender poles to twine round. You should now plant out the remainder of your tender annuals, or they will not have time to grow before the season forces them into flower: keep them well watered till they have taken root.

The Canterbury bells, rockets, and all the perennial and biennial plants, sown in the spring, which are for your next year's stock, should now be planted in beds, at about six inches from each other, till the autumn, when

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they may be transplanted into the borders. Bulbs of belladonna and Guernsey lilies, colchicums and autumn crocuses, should be planted about the end of this month, to flower in the autumn. Do not confound the two latter, as they are different plants: the colchicum is often called *autumn crocus*, but it is not in reality. The flower of the real autumn crocus, of which there are several varieties, produces saffron; the root of the colchicum also is used in medicine.

You ought now to put in practice the instructions I gave you in my last Letter, for making cuttings, as June is reckoned a good month for striking green-house plants.

Chrysanthemums may now be propagated in various ways: the most simple is, to take off a single stem, with some of the roots adhering to the bit pulled off: this method is certain;

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the plants require only to be potted singly in small pots, watered, and placed in the shade till they have rooted; but it is considered, that cuttings make the handsomest plants, and produce most flowers: to make them, about five joints should be cut from the old plant, and set, either singly in thumb pots, or several in larger pots: they must be put in a frame, or under a hand-glass, till they have struck, when they may be taken out, and transplanted into larger pots.

I have lately been employed in constructing a very pretty ornament for a corner of my garden; and as you may make one yourself with very little trouble, I will tell you how I set about it. The main part is merely a round flat basket, in which some plants were sent from a nursery-man: this is set on four short stakes, with some crooked pieces of wood

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nailed on them, as rustic work, in the same way as the rustic seats and tables are made: these branches are nailed on, to prevent the four legs having a formal appearance: the inside is smeared over with melted pitch, to prevent its rotting: this, however, may be dispensed with, as the basket is easily renewed: it is then filled with fine rich mould, and in it are plunged pots of all sorts of tender annuals and green-house plants. I had previously made holes in different parts of the sides of the basket, into which holes I introduced several trailing plants and creepers, which look extremely pretty; some peeping out covered with different coloured flowers; others twining round the wicker-work; and others hanging down, and in some places touching the ground. To manage this well, I found it necessary, when the basket was partly filled

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with mould, to open the wicker-work a little in places; and, after putting the plant with-inside, I drew it through the hole, leaving the roots only in the basket, which I then continued to fill with mould. The plants I have put in it are, first, a very large yellow *Calceolaria*, of which I sent you a specimen, *Lobelia splendens*, white tobacco, purple *Jacobea*, or groundsel, *Mimulus rivularis*, China asters, and, round the edge, a border of heartsease, of different colours. The earth at the top of the basket is covered with moss, pegged down, so as to conceal the pots that the plants are growing in: when any of these go out of bloom, they are replaced by fresh pots. Very pretty tables and vases are constructed somewhat in this manner: I shall send, in my next Letter, a sketch, which I lately made of some: perhaps, as you are a

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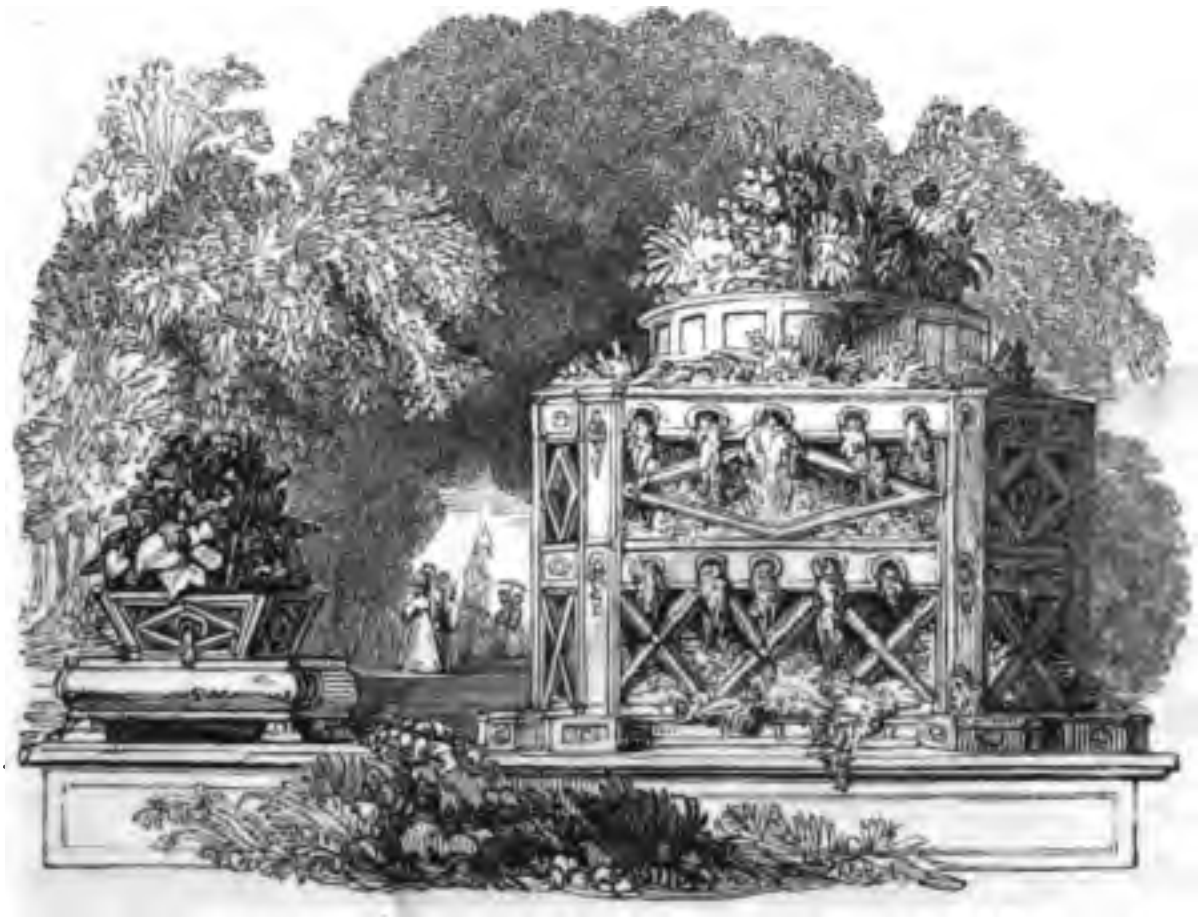
June.



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RUSTIC FLOWER STANDS.

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Lobélia Siphilitica.

Blue American Lobelia.

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good carpenter, you may contrive to make one, if not exactly like it, at least in the same style. I mean, very shortly, to try my hand on the small one. Out of the sides, peep the pretty small blue *Lobelia*, the yellow *Nummularia*, or moneywort, which though an English weed, to be found in any damp meadow, is not to be neglected, since, in damp shady places, where scarcely any other plant will grow, it creeps upon the ground, covering it entirely with its bright green leaves in the spring, and in the summer with its golden flowers, which are not unlike strings of sovereigns.

You see, I have been fully employed since I wrote; besides this, I have had much to do: my box edgings have been clipped, and my gravel has been weeded; this is very necessary, otherwise the weeds, which spring through it,

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if allowed to ripen their seeds, would be scattered all over the garden. I am now very busy tying up carnations; cutting off their small flower buds, in order that those left may flower finer; and tying fine bass round those flower pods that are rather round than long, to prevent their bursting: this I also do to my fine pinks. I also slit the flower cup lengthwise, at every notch, to make it open evenly, and form a fine round flower. My garden now fully repays me for all my trouble: it is extremely gay, and the roses are beginning to flower. The *Phlox ovata*, a pretty flower, the *Iris Germanica*, (or common blue iris,) the *Papaver Orientalis*, (or fine scarlet herbaceous poppy,) the *Fumaria nobilis*, the *Geum coccineum*, a beautiful new plant, but now getting common; the double and single

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yellow Welsh poppy, and a very pretty blue flower, called *Lithospermum Orientalis*, are among those in blossom at present, in my common borders, which I most admire. The peat border is still prettier than it was last month, as the *Azalias* and Rhododendrons are in full bloom: there is, besides, in bloom in it, a rare little plant, the *Rubus Arcticus:* this plant bears a small pink flower, resembling that of the common blackberry, to which family it belongs; and though, in appearance, like a blackberry, is very delicious eating, and somewhat similar to the cloudberry, so common in the highlands of Scotland.

I had nearly ended my Letter, without giving you a valuable piece of information, which is, that you must not fail to sow, in an eastern border, and in fine sifted mould, some Bromp-

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ton stock seed, to flower next spring; if you can put a hand glass over the seeds till they come up, so much the better; after they are up, take off the glass. I should have been sorry if I had forgotten this; because, next year, owing to my carelessness, you would have been without stock plants; for these are to be kept through the winter, to flower in the spring. I must not be so careless of your interests in future. I fear, I am often led away, by a desire to talk of my own garden, from subjects of more interest and consequence to yours.

Ever your sincere friend.

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July.

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ARRANGING THE NOSEGAY.

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LETTER VII.

My Dear Harry, July 7.

You are now, I suppose, enjoying the fruits of your industry, and your garden is brilliant with flowers. Without meaning to moralize, in any great degree, on the subject of labour sweetening pleasure, I think what I have before written to you, and so often told you, now comes convincingly on your mind. Until you had yourself reared plants, learned the means of doing so, saw when you failed, and found out the reason why you did so, the pleasure you enjoyed in the mere looking at a flower, when little else than its freshness, its scent, and its beauty pleased, was very different from that which you now feel in regarding those which you have raised yourself.

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I never meant to persuade you that gardening is the most important of occupations, nor that the lessons you are to learn from it are of such consequence that nothing else is to be sought after; yet, as we must all have amusements, I think few will deny that gardening is one of the most rational. It conduces to health, gives pain to no living thing, and, without any very great exaggeration of its merit and praise, you may, by devoting your play hours to your garden, learn things that may be useful to you afterwards.

As I have got into a moralizing strain, let me impress on you the value of a habit of keeping all things neat, and in due order. The advantage of so doing will be considerable; the neglect of it must prove fatal, as well to your garden, as to whatever else you may engage in. I could write you a long letter on this subject;

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and I will, as soon as I have time. Having myself experienced the value of this habit, it will give me pleasure to point out to you all its advantages, in the hope that you may be induced, even in early life, to adopt maxims of arrangement and order, both in thinking and acting.

You cannot hope to succeed in your garden, nor indeed in any other occupation, without reflection,—without really and fairly attending to what you undertake, or plan; and if you once acquire this habit with regard to your garden, it will extend to the rest of your duties and occupations; the consequences will be, facility of action, even under embarrassing circumstances; time always at your disposal; your mind free from anxious perplexities, such as beset persons who have no determined plan of action; and that respect and consideration in

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the world, which punctuality and decision of character never fail to command. But, lest you should begin to doubt whether I am writing a discourse in ethics, or an epistle on horticulture, I must return to your garden and to mine.

Among the gayest things which your garden boasts of, I suppose, the common annuals, sown in the spring, are not the least. I know not what you may have besides these in flower; but, in addition to my roses, some of which are still in bloom, (the greater part having flowered in June,) I have, among the herbaceous plants, *Phlox stolonifera* and *Phlox amœna; Spigelia Marylandica;* the white, the blue, and the purple *Tradescantia Virginiana,* (or spiderwort); *Dianthus superbus,* whose pretty lilac flowers are deliciously sweet; *Campanula Carpatica,* which I consider one of the most splendid of a very handsome tribe of

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Hemerocallis Cærúlea.

Chinese Day Lily.

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flowers; *Hemerocallis cærulea,* which is showy; *Anchusa Italica* and *sempervirens; Lobelia siphilitica,* which is singular from its colour; and many others, too numerous for detail: all, however, making a mass of colour, and a show, which, I consider, puts me high among young gardeners.

It is in July, that I always lay such carnations as I wish to increase. I grow none that are very tender; but I have a great many showy border carnations, which I have raised chiefly from seed; these remain in the ground all the winter through: I have occasionally potted a few layers, to blow in pots; but they require such constant attention, that, unless you can devote much time to them, and have, besides, very fine varieties, they are not worth the trouble. The manner in which you must set about making these layers is as follows: clean

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away all weeds and litter from the roots of the plants to be laid, and spread fine mould, about two inches thick, round them, that it may be ready for the young roots to grow in; have some small pegs, made from fern stalks, or small branches of trees; cut off a few leaves from the lower part of the shoot, and take about an inch off those at the top of it; then, with a very sharp knife, cut a slit half through the shoot between two joints, at about the middle of it, turning the sharp edge of the knife upwards; cut the slit through the first joint to the middle between it and the one above it; then make a hollow in the mould, bend down the cut part of the shoot, peg it down to the ground with its head up, and cover the slit part with about half an inch of mould. You may lay as many shoots as you like, and as are fit, in this way; the only thing to be

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avoided, is taking such as have begun to send out side shoots, for they will not strike.

You will see the reason of this process: you create a wound at a joint; and where plants are wounded, many have a tendency to make roots: so far this process is the same as that which takes place in a cutting, except that the cutting is entirely separated from the parent plant. There are some plants, however, which will not send out roots when entirely separated, yet will strike when a wound is made, and the communication and circulation are kept up with the parent plant. This is called propagating by layers. In many cases, plants will strike both from cuttings and layers; but the latter are more certain, because of the communication between the old plant, which keeps alive the half separated cutting until it has formed new roots on the part divided; after which, the layer

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becomes a new plant, nourished from its own resources, and may be safely separated, either by transplanting to a bed, or by potting; either may be done in the autumn or in the spring.

If you do not understand these directions, or consider them too troublesome, you may raise carnations by pipings, in the same manner as you would pinks; but they do not strike so freely as the layers, and the plants are much weaker, because they are longer making their roots.

There are many varieties of carnations: florists have divided them into Picotees, Painted Ladies, Bizarres, and Flakes. The flowers of the Picotees have a white or yellow ground, and their edges are fringed or spotted with scarlet, red, purple, or other colours. The petals, or leaves of the flowers, of the Painted Ladies, are coloured on the upper side only, and

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white beneath. The Bizarres are striped with three or more colours; while the Flakes are of two colours only. The edges of the petals of carnations, to be perfect, should be round and smooth. Carnations with round pods are apt to burst; to prevent which, they should be tied round with a thin bit of bass, and slit a little at every notch, in the same manner as I directed with respect to pinks. It is usual also to cut circular pieces of card, about two or three inches in diameter, with a hole in the middle, of the size of the bud, to receive the lower part of the petals: just below the notches of the cup: a slit is cut on one side, to allow the petals to expand as much as possible. This is put on before the flower opens.

You must pay great attention now to weeding, sweeping, tying up flower stems, and cutting down such as are out of bloom and

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decayed. No garden can appear neat, in which these little things are not attended to.

The seeds of some of your spring flowers are now ripe; therefore gather those you wish to save, and, after drying them in the air, clean them from dirt, and put them away in small bags, or packets: it is better not to take the seeds out of the seed pods, as they keep much better in them, (or, rather, do not dry too much); but they should be picked from the stalks, as otherwise they take up too much room.

My carnations now occupy the greatest part of my time: what with laying some, and attending to those that are coming into bloom, I am fully employed. The laying, you will find, is rather slow work, as it must be done with great nicety.

While writing on the subject of carnations,

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I must tell you of a plan, adopted by a gentleman who is passionately fond of this flower, in order to shew, at any time of the year, specimens of the varieties he possesses. When they are in full bloom, he chooses from each the handsomest petal, and gums it down on the leaf of a book; afterwards, he covers over the petal itself with gum, which preserves its colour; opposite to each petal is the name of the flower, or number of the pot, from which it was taken; so that he is able, at any season, to give his friends cuttings, or plants, and to shew them, at the same time, the sorts they are taken from.

You may still continue to raise all sorts of greenhouse plants from cuttings, likewise sweet-williams, pinks, &c. though it is better to do this earlier. The pinks and carnations, that have been raised from seed last year, will

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blow about this time; and such as are not worth preserving ought to be rooted up whilst you can distinguish them. Any shoots of the good ones, that are fit, may be laid. I need not, I think, repeat every month my instructions concerning watering (in dry weather) those seedlings, or newly planted roots, that may require it; you will always be the best judge yourself of what absolutely requires water; and I need only caution you not to give too much, especially where the soil is strong, as over watering will occasion the plants to grow too much, and thereby exhaust their strength in leaves; in which case, the flowers will be but poor and few.

You must continue to take up such bulbous roots as have lost their leaves, and put them away till the time for replanting arrives. Crown imperials, martagons, and red lilies,

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should not be long out of the ground, and may be moved now, if you wish to do so.

I think you must have seen and admired the standard rose trees, which, of late years, it has been the fashion to plant in most flower gardens, on lawns, and even in shrubberies: they are themselves so formal that they are a great addition to a Dutch flower garden. As their price is rather high, it may not be amiss to inform you how they are made to grow in this manner; and as this is the season for budding roses, you may perhaps be tempted to try your skill.

The best mode of getting standard roses, is to dig up from the hedges some strong plants of the wild dog-rose, and cutting away all side shoots, leave one stem: this may be done early in the autumn, or in the summer, from the end of July till August. At about the height

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you desire your tree to be, you must insert in the stem, two or more buds, of such roses as you wish to grow on the standard. This operation of budding, which is very simple, consists in taking one of the buds when completely formed, together with a piece of the bark attached to it, and after cutting a slit in the bark of the standard, or stock, as it is termed, putting the bud into the slit. This is done by slightly raising up the bark on each side of the slit, then pressing the inserted bud down in the place of the bark you have raised, and tying a piece of wet bass round the stem, so as to keep the bud in its place, and exclude the air from the wound. The circulation of the sap enters into the bud, just as it did into the bark of the parent stem; and, in the following spring, the bud will shoot out just as do the other buds of the original plant. You must,

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however, cut away all the branches and ends, except those you have inserted; and, by allowing them only to grow, you will have at once a large rose-tree, the stem of which is a dog-rose, while the branches consist of shoots from the buds you have inserted. I do not hope that you can actually perform budding from this description: I have merely stated the general process. Ten minutes' practice, under the direction of a gardener, will enable you to perform the operation, which, though it requires care and neatness, is very simple.

I should here call your attention to the study of vegetable physiology; for, without some idea of this, you will not understand why the bud, so inserted, should grow, or why, having once discovered that it will grow, you may not insert a rose-bud into the bark of an oak, with an equal chance of success. This

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subject is absolutely necessary for you to understand, if you wish to become a good gardener, and to reap all the instruction and amusement which is to be derived from attending to your own garden. But it is too long for this present Letter, and I must defer my intention to some other opportunity.

LETTER VIII.

My Dear Harry, August 3.

I forgot, when writing on the subject of carnations, to remind you of the tree carnation, which is a very desirable plant, and has the merit of being hardier, and of blowing longer, than any other variety: planted and trained against a wall, it will begin to blow in

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June, and continue to do so sometimes even after the early frosts have set in; potted and put in a frame, it will flower till Christmas. Should you be able to obtain cuttings of this plant, you may strike them under a hand glass. I think you will have no difficulty in procuring them, as it is a flower the cottagers appear to be very fond of; for I often see it blossoming very finely against their houses. Many of the poor, at least the most industrious and meritorious of the poor, are passionately fond of flowers; and I have always found them much pleased when asked for cuttings of any favourite plant. This, I have no hesitation in doing, when I see they have enough; because I always have it in my power to make them some return, and because also I hope that noticing and admiring their little gardens may induce them to continue so simple and inno-

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cent an amusement, and to pass those few hours, which they can spare from labour, in the midst of their families, rather than in idleness or at alehouses.

It is remarked, that those artizans whose employments are most sedentary, such as weavers, &c. are also more particularly fond of growing plants, and are, in fact, great florists: the Spitalfields weavers have small gardens in the neighbourhood of Bethnal Green, where they cultivate auriculas, tulips, &c. The Manchester and Birmingham weavers are celebrated for their auriculas. These flowers are, in many cases, a matter of profit as well as amusement to the cultivators: florists have instituted societies, or meetings, at which they adjudge prizes to those who produce the finest flowers; they also sell at high prices any new and very fine variety they may have raised.

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I have so often spoken of florists, that I think I ought to explain what is meant by the word, lest you should confound it with the terms *gardener* and *botanist*, which have very different significations. A *gardener* I define as one generally fond of, and conversant in, gardening, who indifferently grows all plants which come in his way, and which his space and means allow him to cultivate. A *florist* is one who confines his attention to the particular cultivation of some two or three plants; carnations, pinks, tulips, hyacinths, auriculas, and ranunculuses, are the principal flowers: and these are well selected, for three reasons: they are all beautiful; they all run into numerous varieties, so that every grower is continually raising something new; and they are flowers which improve, perhaps more than any others, by great care and attention. The same tulip,

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or auricula, grown one season without more than the ordinary care of a general gardener, and grown the next by a professed florist, will be so different, that you can hardly imagine it to be the same. Minute attention to the soil, to the time of planting, to the watering, to the shading, all conduce much to the improvement of the flower. Dahlias and geraniums are now also beginning to be considered as florists' flowers, and they come very well within the class. I do not advise you, however, to be a florist: there is but little variety in his garden: proverbially speaking, "his eggs are all in one basket:" the wire-worm, a swarm of earwigs, or a storm of hail, may destroy the hope and beauty of a whole year, at the moment when he expected to reap the reward of his care. Besides, a florist's views being confined, his notions of excellence become also very refined,

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August.

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GARDEN SPORTS.

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and often fantastical: importance is attached to the shape and colour of a flower, but has little to do with its general beauty, and depends chiefly on its rarity: add to this, the best flowers of each class are often very dear, from their scarceness, and the great demand for them.

A *botanist*, again, is totally different from a florist, though the two are often confounded by people who ought to know better than to use wrong terms. One of the Misses M. whom you may remember having seen here, said, the other day, while walking in my garden, that she was not aware I was a florist; and, in two minutes after, her mother praised the beauty of my pinks and roses, was glad to see I was such a good botanist, and wished her daughters might become equally proficient: she was sure, it was not for want of books, for they had all the best books on botany at home. Now, if

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the young ladies should ever take the trouble to grow pinks and roses, to please their mamma, and look into all their best books on botany at home, I suspect they will find nothing about the matter in them. I hope, however, that you will be a botanist to a certain extent, as it adds much to the interest of gardening. Many of the best gardeners are botanists.

Botany is the science of distinguishing and classing plants, according to their peculiar characteristics; and affords the means of recognizing the marks whereby each individual species may be known from another. I cannot here enter into the whole scope of the science; you will find enough to satisfy you on the subject, if you look into one of the dictionaries or encyclopædias you have at home. You will there see how important it is to be able to class and name plants with such certainty, that on

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seeing a plant you may discover, by its character, under what class it is arranged, and by what name it is called. Consider, even in the case of these Letters, what facilities this science has afforded: I have been able, in two words, to point out to you, with certainty, the plant I mean. I tell you the name of the family, or, I should call it, *genus*, to which a plant belongs—say, a *tulip*, which is the genus; and as there are many sorts of tulips, I add another name, which designates the particular sort of tulip. Now, by referring to any botanical book, which contains the description of the genus *tulip*, you will see whether the flower you fancy to be a tulip, agrees with it: if it does so, you have gained one step towards ascertaining the true name; but, as you find by your book that there are many sorts of tulips, you examine your plant, and read the

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descriptions of the different sorts, until you find one that corresponds with your flower, and then you have both genus and species. Now, if this sort of character had not been applied to this particular plant, and I wanted to describe it to you, what difficulty should I have found in making you understand, by letter, the plant I wished to describe! Try yourself to write such a description of a plant, as shall give every one who reads it a true notion of what you intend to speak of; distinguish it from all other plants in colour and shape, both of leaves, flower, mode and time of growing. The time this would take would be almost endless; besides, the talent and powers of remark which would be required, both in the describer and the reader, would be considerable. Botany is a new science: in ancient times, there were no such divisions of plants, and therefore

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none or few of those described in ancient books, can be with any certainty known. The mode of dividing plants into classes, is done by taking some particular parts of the flowers as characters, and all that answer in that respect are ranged under the same class; thus you will find what are termed the *anthers*, always of the same number in a tulip, and this is made to form one of the signs, or marks, of the family; and it is by knowing thoroughly these signs, or marks, that a botanist is able at once to distinguish any flower. Suppose, therefore, a person wishes to tell you all the flowers he finds growing on the Alps, and he sends you a list of three hundred names of the different genera, adding to the name of the family, or genus, of each, what is termed the specific name, to shew which particular one of the genus is intended. Thus, on half a page, he can tell with certainty, all

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the plants he wishes to describe; and although you do not yourself know them, yet by referring to some botanical work, you are made acquainted with their history, habits, &c.; but if these means had not existed, what difficulties would there not have been in describing each particular plant! Indeed, nothing short of an actual picture of each would be sufficient. I shall be glad to learn that you are not content with growing plants only, without knowing them scientifically, and also their uses and properties: the first book on botany you look into will shew you how imperfect is my description of the science.

I have made a long digression, but, I trust, not an uninteresting one to you. I now continue my directions concerning carnations. If you have not laid as many as you want, or if those you have laid have not taken root, you may

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continue to lay them during the beginning of this month; but it is not advisable that this should be delayed entirely till August, for, unless the weather be very favourable, these layers will not have time to make strong roots before winter comes. The stems of such as have done flowering should be cut off close to the roots, and the same may be done by the rooted layers which you intend to pot and keep in frames during the winter. After they are potted in fine rich light vegetable mould, with a small quantity of loam, they must be set in a frame and watered; during the hot sunny days, they ought to be shaded from the sun, and allowed no air till they have rooted, which you will know by their leaves becoming erect; after which, give them air, by degrees, till you can venture to take the glass quite off. I have told you what you may do, but it is not

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my practice to pot all my layers; though I generally keep a few carnations in pots, lest a very hard or wet winter should destroy those left out in the borders. I therefore take off half my layers when they have rooted, and set them in a bed as I do my pinks, and protect them during the frosty and wet weather with hoops and a mat, in the same manner as I have before directed; the other half I leave on the parent plant, and in the spring transplant them into the borders.

You may lay Indian pinks, sweet-williams, or any plants of a like nature. Indian pinks, however, are rather tender, and do not so well stand a hard, or wet winter.

I have talked to you about shading weak plants from the sun, and excluding air from cuttings, &c. without however telling you the reason; and so far I have erred: for, when you

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learn the reason, you will know when you ought to do so. The sun and air dry up the sap or moisture of plants, and if a plant be weak, (which it is when transplanted, because the roots, being disturbed, cannot exercise the office of collecting new sap or nourishment,) then the object is to save as much of the nourishment in it from being exhausted as possible, by keeping away the sun and air, until it is in a state to furnish a full supply of sap. The same observation applies to a cutting which has no roots: here it is material, except in the case of very freely striking or rooting plants, to keep all the sap in the plant until new roots are formed to supply it with more; and hence the reason of putting cuttings under a glass, which excludes the air; but, whenever the roots are formed, the glasses should be removed, as, by excluding the air, little sap is ex-

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hausted, and therefore the roots are not called on to supply much, and do not increase; the plant therefore dwindles away. Try this, and be convinced; one failure, with the cause of it found out, will often teach you more than twenty successful experiments. Adversity and misfortune in all things are good, though hard mistresses.

If you have any wish to raise bulbous roots from seeds, the seeds should now be sown in pots or boxes; but it will be so long before these seedlings come to perfection, even with great experience and care, that I should advise you to procure offsets of crown-imperials, martagons, irises, and others of this description. Pionies also should be planted now.

I shall send you, when I take them up, bulbs of the magnificent *Ferraria tigridia,* (tiger flower,) which I have succeeded in raising

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from seed so well, that I had this year a large bed of flowering plants of my own raising. Its flower is, in my opinion, the handsomest among the bulbous-rooted, but, unfortunately, it is also the shortest lived; though it compensates for this, in some measure, by producing daily, for nearly three months, new flowers.

You may begin now to propagate and transplant most sorts of herbaceous roots, by dividing them, or by slipping off pieces of the plant, which may either be potted or planted in the borders. This work will depend, of course, on the state of the weather: should there have been no rain, and the ground be hard and dry, defer to a fitter time, as well as transplanting into the borders the seedling biennials and perennials which were sown in the spring: the same observation applies to transplanting. When you transplant under a burning sun,

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before the plant can recover, the sun takes away the moisture, and the plant either dies, or is so long recovering, that the season passes away before it is able to produce its flowers. In case you should be unavoidably obliged to transplant in hot weather, shade the root with a garden pot, which should be taken off at night that the plant may have the benefit of the dew.

I am now going to sow mignonette in pots, to keep in a cold frame through the winter. When the seedlings come up, I allow only four plants to each pot, and give them as much air as possible during the winter. After they have flowered in the spring, I cut them down, and turn them out in the borders, where they make good plants, and flower again sooner than the spring-sown seed. I am also busy collecting plants for the rock work, which I told you of: among these, the saxifrages are what I am

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most desirous of obtaining: now is the right time to divide them.

My garden continues to be very gay; though the first blaze of bloom is gone off. I have in flower three sorts of *Lobelia;* and, by the by, I ought to have told you to get a plant of each in the spring, as they are easily propagated, by dividing the roots, either as soon as they have flowered, or in the spring: some of mine, in a peat border, are four feet high. My *Salvia splendens,* (scarlet sage,) promises to be very fine shortly; and the *Amaryllis lutea* is flowering very well; but the China asters are at present the greatest attraction of my garden; as the dahlias have not yet opened sufficiently to shew all their beauty. I have many things, besides, among the herbaceous plants; such as *Asclepias tuberosa,* different varieties of *Phlox, Astrantia minor,* and three sorts of *Liatris,* viz. *spicata,*

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squamosa and little *Scariosa.* The geraniums, and other green-house plants, planted out in May, are flowering well, especially four varieties of cheone, which I raised last year from cuttings; and am now going to make more, to keep through the winter, of *Calceolaria* and *Phyteuma,* or white tobacco.

I have written you a longer letter than usual to-day, but it will be the last long letter you will receive from me on gardening; as I shall have, towards the close of the year, but few instructions to give.

Ever your affectionate friend.

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LETTER IX.

My Dear Harry, September.

I have already said so much on the culture of carnations, that I fear I shall tire you; yet I must add, that if you have potted any layers, and they are already rooted, you should take them out of the frame, and give them a small quantity of water, in dry weather. I have written more on carnations than on any flower, perhaps because I have myself raised so many showy, though not valuable varieties, and it has become my favourite flower: besides, I find seedlings easily grown in borders. They flower at a time when the blaze of hardy annuals and roses is past, and before the

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more tender flowers begin to blossom; add to this, I think the perfume of the carnation as delightful as that of the rose or the violet, and the plants remain a long time in flower, and do not occupy much space.

I ought to have told you, in my last Letter, to transplant your pipings of pinks when they have struck; which you will easily know, because they begin to shoot up as soon as they have roots. I should not think they will be much hurt from being kept under the glass, if you have allowed them air since they began to grow: this you must not fail to do with all your cuttings, before they are transplanted into the borders; or the sudden chill occasioned by removing them at once from the heat of the glass, added to the disturbing of their roots, would seriously injure them. If you wish to have a bed of pinks next year,

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you should now prepare one of light mould, rake it smooth, tread it down, and plant the pipings in rows, five or six inches apart, and let the rows be at the same distance from each other. Next spring, take up every other plant, and put them where they may be required, in the borders. It is not advisable to plant pipings at once in the borders, on account of their small size, and because as it is easier to water a bed of them, than to look for them among other plants, they are better attended to in a bed of their own.

If you did not plant your box edgings in the spring, the latter end of the present month will be the time when this should be done; and any edgings that have grown too thick, may be divided. Slip the box plants, each piece having roots, and plant them thick enough for the shoots to touch each other, so as to form an

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edging close enough to prevent the gravel getting into the borders. I have already told you how to ensure the edges being straight.

You must have found it necessary to redouble your attention and labour last month, in order to keep your garden neat; weeds at this season, as well as flowers, grow apace: there must also be added to tying up, rolling, cutting off dead flower stems, raking borders, clearing them from the leaves of trees which may grow near, and which, if left on the beds, give them a very untidy look.

You must continue to collect seeds, and dry them as I before directed. Be particular in choosing a dry day for gathering them; for seeds are apt to decay, if put away in a damp state; from carelessness in this respect on the part of those who raise seeds for sale, great disappointment accrues to the purchaser. You

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should also know that some seeds require to be gathered before they are perfectly ripe; for when they come to full maturity, they burst their pods and are lost; for example, the balsam, which is called *impatient*, or *irritable*, from the seed flying out when the seed vessel is touched. This property of the balsam is very striking, and is well worth your minute observation; it is one of the many and admirable means which Providence has taken for the dispersion of seeds, in order to continue the propagation of the species. You will observe the elastic spring which the seed vessel gives when touched; so as to throw the seed to some distance. This property is more remarkable in the wild English balsam, or *Noli me tangere;* and still more in the spurting cucumber, or *Elaterium.* I shall not digress into an account of the different modes by which seeds are scattered: you must

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have remarked those which have downy wings attached to them, as those of the thistle, which float in the air for miles; others are carried to great distances by birds, &c: these subjects are amusing, nay more than merely amusing, they serve to display the wisdom of Providence in the creation; they shew how great must He be who ordained and governed even these minute things; and how kind must He be who created all these for our enjoyment and use.

I desired you, in June, to sow some Brompton and Ten-week stocks: such plants as have shot forth half-a-dozen leaves may be potted, to be kept through the winter in a frame; a few may be pricked into the borders, to take the chance of living through the winter: if they do live, they will blow finer than those in the pots, though not so early. The pots must be well drained, as stocks do not like much moisture.

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About four of the Ten-week may be put into that sized pot called a forty-eight; but the Bromptons should be potted singly, to flower finely. Like all other plants, they must be watered and shaded till the roots are established, and then treated in the same manner as the mignonette; allowing them air whenever the weather will permit, or they will grow too tall, and the lower leaves will fall off. Stocks merely require to be kept from frost and damp.

If you intend to increase the size of your American border, you ought now to get some fresh peat, and put it in a heap; turn it over occasionally, that all parts may be in turn exposed to the frost, which will cause it to fall to pieces; and next spring it will be fit to use. You should also procure some light loam for potting, or making new beds.

My Dahlias are now in full bloom, though I

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cannot say they are as fine as I have had them in some seasons: this I attribute to the quantity of rain that has fallen this year: it was the same with the China asters; they, like all the tender annuals, grew so much after they were planted out, that they became too large and coarse, expended their strength in foliage, and flowered indifferently. Besides many of the plants, which I mentioned in my last as being in flower, I have now *Phlox pyramidalis*, *Aster amellus*, and *Cyclamen Europeum*: these, added to the Dahlias and a few hardy annuals sown late, keep up the reputation of my garden very well. Among the most delightful flowers in bloom, at this season, I consider the Neapolitan violet to hold the highest rank: its colour is pale lilac; and its scent, though not so powerful as that of the common violet, is more delicate; its great merit is flowering at this season. There is

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another description of violet, the Russian, which is perhaps more valuable still than the Neapolitan, since it flowers during many months in summer and autumn.

I have lately seen a new method for preventing the pods of carnations from bursting, which I think superior to the old one: it consists in cutting off both ends of a broad bean, and thrusting out the contents: the skin of the bean, which is remarkably tight, is then drawn over the pod of the carnation; there it dries, and its toughness prevents the carnation flower from splitting it. This plan is better than that of the card, which is unsightly.

We have turned what was formerly rather an ugly object on the lawn, into an additional ornament to the garden. You must remember the cherry-tree, under which we have so often sat and played together: for some years, it has

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been dying, and the gardener wished much to cut it down. We have, for some time, resisted this, because this tree has always been called "the children's cherry-tree." Last year, I begged permission to make a border round it, and promised Mamma, if I did not succeed in making it ornamental before the end of the present autumn, that we would no longer interfere to save it from being rooted up. In the border I planted against the tree, variegated and Irish ivy, and every kind of creeper that I could procure: my plan succeeded admirably; all have survived, and the tree is more than half covered with a luxuriant foliage far superior to what it naturally should possess. The Ayrshire Rose, different sorts of Clematis, and several other trailing plants, have successfully decked it with flowers. The Virginian creeper and ivy will be its last orna-

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ments. I have also increased the width of the border, and filled it with varieties of hearts-ease.

Dear Harry,

Your affectionate friend.

LETTER X.

My Dear Harry, October.

I am delighted to hear that you found my letters short; I infer from it, that our correspondence continues to interest you. I have now so few general instructions to give, that I must confine myself to finding employment for you during the few weeks that you can yet work in your garden. I shall have scarcely any directions to give you for November and December; as, during these two months, I amuse myself in-doors with books, writing,

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and my other occupations, which I will not take up your time with relating, lest you should abandon your garden for some new amusement during the last month that it is possible to work in it, with any degree of pleasure.

I am now busily preparing a bed for my bulbs, which is a matter of great consequence. If gardening teaches you neatness, it may also teach you foresight; for as you sow, so you must reap; and if you do not provide in winter, your garden in the summer will be barren. The soil I use for the bulbs is composed of rich light mould, sand, and rotten leaves. I plant, with a round-ended dibble, the hyacinths and tulip roots in rows about five inches deep and six inches apart; I put a little fine sand in each hole before I put in the bulb, over which I sprinkle a little more, and then cover it with between three and four inches of earth. Cro-

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cuses and snowdrops, of course, require to be planted closer and not so deep. The narcissuses, I find, succeed best under a south wall: they should be planted as near the wall as possible, as the roots then get less wet; and may therefore be left in the ground, where they form fine patches. I have some planted in this manner, which appear to me to flower finer every year; in a bed, they should be planted four inches apart, and three or four deep. Bulbs intended to flower in pots should be potted in good soil, such as I have described, and placed in a frame, or under a south wall, and then covered a foot deep with mould: this process occasions the bulb to throw out roots before the leaves begin to grow, and thus there is good support for the leaves and flowers; for it is from the roots that a portion of the nourishment is supplied: thus, by covering the

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bulb deeply with earth, the roots, which will grow at a temperature lower than the leaves, vegetate first. This is the mode in which the plant grows in its natural state; and as I have said before, the surest method of growing plants will be, as much as possible, to imitate nature. The custom of planting bulbs at the top of the pot, and then putting them into a green-house, or warm room, sets the leaves and the flower growing before there are sufficient roots to afford them support. When the leaves of the roots which have been buried are about three or four inches above the pot, then they may be taken from the mould as they are wanted, and placed in a green-house, or in the window of a warm room, to flower. On taking the pots out of the mould, you will find the leaves of a sickly yellow colour. I have already explained that the absence of light is the cause

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of this; placing them at a window will soon restore them to their natural colour. The process I have just mentioned is not much known to amateur gardeners; it is, however, the manner in which all the fine forced roots are grown in the London nurseries. I have told you, that most of the bulbous rooted plants are natives of dry climates, and are only watered by the spring rains: you must take care, therefore, that your bulbs do not have much water till they begin to grow strongly; and you must select a place to bury them in, where they will be well sheltered from too much wet; though a small quantity will be necessary, when they begin to grow freely. While they are in flower, they may be well supplied with water: the soil they are covered with should be light, so as to allow the rain to pass quickly through. I told you to put sand

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round each root: this is to form a drain, because water is not retained by sand; it therefore prevents the wet from lodging round the root, or in its coats. You will observe that a tulip, when well-grown, has a very hard skin: this should be carefully taken off before planting, so as not to injure the rudiments of roots which you will perceive at the bottom; the reason why this should be done, is, that the skin, when split by the frost, forms a sort of cup which holds water; hence the root, being held as it were in a basin of water before it begins to grow, is often destroyed by the rot.

Those who grow narcissus and hyacinth roots in glasses, should, after putting them in the glasses, place them in a cold cellar, to make the roots shoot at least three inches before the leaves, for the reason I have given already.

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About the middle of the month, anemonies intended to flower early, should be planted in the same manner as I formerly directed as to ranunculuses, which may also be planted at the end of the month, or in the beginning of November, unless your soil be cold and wet; in which case, it is better to wait till the end of January, or beginning of February. As the roots of ranunculuses and anemonies begin to swell as soon as they are put into the ground, and do not vegetate for some time, it will be necessary, if there is any sign of frosty weather, to cover the ground with straw; and if the frost be very severe, a mat must be again thrown over that, but both mat and straw ought to be taken off as soon as the frost is gone. The reason why this should be done is, because the root swells from the addition of the water which it has soaked up, and as water freezes much more readily than

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the juices of the plant, the root is more liable to be injured by the frost; and if once frozen before vegetation has commenced, the root decays.

If your cuttings of the green-house plants have failed in striking, you ought now to take up the old plants, pot them, and place them in a green-house, or cold frame. By cold frame, I always mean one placed on the ground, without manure or tan; some ashes should be laid at the bottom and beaten down hard, which, in some measure, will prevent worms from getting into the pots. This I think the best manner of preserving all sorts of Alpine and hardy green-house plants through the winter, such as scarlet geraniums, coronillas, calceolarias, flaxes, stocks, lobelias, &c.: the latter sometimes survive the winter in the open ground; but as a very hard or wet season

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might destroy them, a few roots ought always to be potted.

You will continue to clear your borders of decayed annuals, &c.; to divide and transplant your herbaceous roots, taking care to mark all roots with sticks, lest, in digging, they should be injured by the spade: in fact, I must advise you to leave no work of this kind undone, as there is always more general work to do in the spring than at this time of year. You may also cut back such flowering shrubs as have grown too large, as soon as they lose their leaves; put sticks to those that require it, taking care to suit the sticks to the size of the shrub, so that they may be seen as little as possible. I think I have before warned you to take care, in pruning your shrubs, to distinguish between those that form their blossom buds, at the end of the shoots which are to produce the flowers in the spring,

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and those which produce their flowers from the shoots, or any part of the stem. The lilac is an example of the former: the buds which are to blow in the spring are made in the autumn at the tips of the shoots; and if you take, in September, a full round bud of the lilac, you will see the little embryo flower and leaves formed ready for the next year. The rose is an example of the other class: here the flowers are formed on all parts of the stem from new shoots, and it is therefore best to prune away, in the autumn, all the old shoots of the preceding year, down to two or three buds, from which the new shoots arise to produce flowers in the following summer.

Towards the end of the month, you may begin to transplant the following shrubs:—roses, jasmines, *Cytisus, syringas, Althea frutex,* lilacs, honeysuckles, *Daphne mezereum,* &c. But let

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this be done with care; and do not, to save a little trouble in digging, make the holes too small for the roots, which should all be carefully preserved (unless the plant grows too luxuriantly) and well spread out. Next see that you place the stem upright in the hole; and after you have thrown in a little earth, shake the tree, that it may settle about the roots, and tread it over to keep the plant steady. When you are planting roses, endeavour to obtain suckers of one called the *Boursault rose;* it will help admirably to cover your paling, as it is a trailing rose. I have planted it against a shed, which I have covered with ivy and other creepers: it grows very fast, and flowers very early. Mine has been planted three years; and, last year, it made one shoot, or sucker, which was at least fifteen feet in length; this branched out on both sides, and, early in June, was

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covered with blossoms: this year, it has made a great many very strong suckers.

You must water the carnations, and all plants that are in the cold frame, during the winter; but this must be done with great care and discretion. I have before observed, plants are more likely to die from damp and water soaking in the pots, than from cold. They ought now to have the glasses put on the frames every night; but, during the day, they must have plenty of air.

The frosts have not yet injured the Dahlias; they are now almost the only ornament of the garden: the stocks, mignonette, and some *Œnotheras*, still exist, but they have nearly lost both smell and colour. Some green-house plants, which I turned out under a wall, are still doing pretty well: *Calceolaria rugosa*, *Phyteuma*, night-scented stocks, and *Plumbago capensis*,

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October.

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A ROMAN ARBOUR.

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(formerly considered a hot-house plant) are among the number.

You will receive with this Letter, the last basket of plants that I shall send you this year; and with it a drawing of a Roman arbour, which was made from one discovered in the ruins of Pompeii; and which, in our love for classical ornament, we mean, with the assistance of my brother, to imitate at the end of our garden. I must say, however, the seats which the Romans used for reclining on, do not appear very well adapted for comfort.

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LETTER XI.

DEAR HARRY, November.

MY instructions for the present month will occupy but a short space; though, perhaps, you will employ some time in fulfilling them. I know nothing you can do during this month, except digging your borders, and laying them up rough and hollow, for the winter. Before you begin to do this, pull up all the annuals; then trim round such roots as have grown too large, as your plants should never be allowed to get too big for the size of your garden. You must also prune such shrubs as require it; this you will not do to *azaleas* and rhododendrons, nor to any shrubs that have already formed their bloom buds for the next year. Go round, and

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put markers and sticks to such roots as require them, and take away the sticks of those from which you have cut away the flower stems. If the sticks be still sound, clean them, tie them up in bundles, and put them away with the tools; this will save you some labour next year, as you will have fewer sticks to cut. Take off suckers where they are not wanted, and give them away, or plant them deep in the ground all together till the spring: perhaps you may then find some use for them. After you have done all this, turn over the borders with a small spade, or a fork if you have one, unless the soil be very light. The dead leaves may be dug in, and buried deep in the borders, as they are of great use in manuring the soil; but if the soil be much exhausted or worn out, from having been long cultivated without any manure, you will do well to dig in some

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very rotten dung, or more decayed leaves; though, in general, it is best not to add much manure to the flower borders, which are not to be raked after this digging, but left rough all the winter, that the frosts may break the ground and make it crumble.

The tulips and ranunculus roots should be planted about the middle of the month: the hyacinths were put in the ground in October. Tulip fanciers usually plant their bulbs on or about the Lord Mayor's day. You will say this is rather a cockney time to fix on. Be that as it may, remember to protect them as well as the anemonies, hyacinths, and ranunculuses, from heavy rains, as well as from frosts; especially from frosts coming after much rain, when the roots are much saturated with wet. Should the winter be very severe, you must put a little straw over them.

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You ought now to collect a heap of leaves to rot into mould for next year; and your peat and loam heaps should be turned and broken occasionally. Your gravel walks should be swept and rolled every week during the winter, even when there is no work to be done in the garden; and, indeed, I do not think you will find this bad exercise in cold weather.

You must not forget to pay great attention to your beds of carnations; they must be protected from both frost and wet. And, I may here tell you again, that the great object in most of our garden plants, like carnations, &c. is to guard against too much wet; this is far more injurious than frost: many of the plants which we have in our gardens are killed by the effects of wet more than by the frost. This observation applies particularly to Alpine plants, or those

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that come from mountainous countries, which are covered all through the winter with snow. You will be surprised to find that a plant which, in its native country, lives well through an eight months' winter, under a coat of snow, dies and dwindles away during our far milder winters. I must try to explain this, as well as I can; and it will be of great advantage to you in two ways: first, it will give you a habit of thinking, and of looking into the reason of things, and will teach you not to remain in silly wonder at what you cannot understand; secondly, it will give you the best chance of growing Alpines, which are my favourite plants; so, indeed, they must be with all who have small gardens; for they are generally dwarfs, and very beautiful; moreover, they are nearly all amongst our earliest harbingers of spring. I must, however, make you a bit of a philosopher to understand me:

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some bodies retain heat longer than others, and snow is one of them: different bodies are said to be good or bad conductors of heat, in proportion to their capacity of keeping or losing it. Air is a body, marble is a body, and water is a body; but when marble and water are surrounded by air, you find the air warm, and water and marble cold, in comparison. Now, if they retained heat in the same degree as the air which surrounds them, their temperature would be the same; yet you find the water and marble colder than the air; that is, the marble and the water part with some of the heat to the air, which, therefore, has more of it, and is, consequently, warmer: now, snow does not part with heat quickly; that is, it does not become cold quickly, which is the same thing; and when it has formed a covering to the earth, and the external air is colder

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than the snow, the snow retains, in a great degree, its heat, and prevents the external air from communicating its cold to the earth beneath; so that plants under snow are thus, in a great measure, prevented from experiencing the intense cold of the external air; in other words, they are not colder than the snow itself, whilst the air is far colder.

Now, in this country we have often intense cold, and no thick coating of snow to cover the plants, which are in consequence left exposed to it; and they are killed by it. In addition to this, the rains of our winters soak into the ground, and into the heart of the plant; and as the principle of life is very weak during the winter, the plant being in a dormant state, cannot resist the effect of the water, which rots it, beginning first with the leaves, which died on the approach of winter;

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and the disease, or rot, is continued from the dead to the living part. Again, in the Alps, the plant, under the snow, is prevented from growing, till the snow melts and the warm winds come; but in our climate, it happens often in the winter, and very early spring, that a few fine days cause the plant to grow before its time; then winter comes again, checks, and sometimes even kills the opening buds, which were reserved for the great effort of nature to be made in spring; the consequence is, that the plant either dies, or lingers in a poor miserable state of existence, scarcely able to make leaves again to keep it alive, far less to throw up bloom. Yet the same plant, in its native Alps, secure under its snow mantle, reposes throughout the cold, till warmed by the sun, which at once melts the snow and calls it into life and bloom in a few days, with-

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out the fear of those mishaps which our uncertain climate dooms it to experience.

Without being a great traveller, I have seen the effect of an Alpine spring. In May, all is one mass of white snow, silence, and desolation. The power of the sun, with the coming season, at once turns the white to green, and in a few days, whole rocks,—whole districts, I may say, —are covered with white and yellow saxifrages, different sorts of violets, primulas, and blue gentians; and the little trailing strawberry clings to the sides of endless towering rocks: this change, effected in so short a time, appears more like enchantment than the slow and uncertain return of spring to which we are accustomed.

I do not tell you all this to put you out of humour with our spring: it has, like that of the Alps, its beauties: the fine sunny days coming

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at intervals, a soft air, after the drying March winds, the cheerfulness of the birds, and the struggling plants venturing forth, (often too boldly,) are perhaps as pleasing, from the variety and the uncertainty, as the sudden and certain change I have attempted to describe.

You will see by what I have said, that, if you grow Alpine plants, you must imitate, as far as you can, an Alpine climate; and as you have no snowy jackets for the natives of snow-clad hills, you must find a substitute for it: this will best be found in a frame, in which the most tender of these plants may be preserved during the winter. Care must be taken that the pots be well drained; and a mat should be thrown over the frames during very frosty weather.

The more hardy Alpine plants, which are left out all the winter, should be planted high above the ground, on rock work, that the wet

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may drain off, and these, as well as those in pots, should not have a southern aspect, lest they be too early coaxed into growth. This treatment is absolutely necessary to preserve all the primula tribe, among which the auricula, the most beautiful of florists' flowers, is classed.

I had almost forgotten the Dahlias: I am about to take up mine, their leaves being destroyed by the frost three nights ago. I find, I am more fortunate than some of my friends, whose dahlias were touched by the frost in the middle of last month. I shall now take them, cut off the stems close to the roots, and put them away in a dry place, secure from cold and damp till the spring. The same must be done by the roots of Marvel of Peru and *Commelina cœlestis.*

The few plants that continue to flower are very shabby, though (till my dahlias were de-

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Argemóne Grandiflora.

Large-flowered Mexican Poppy.

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Pub.d May 1.st 1820 by J. Harris St. Pauls Church Yard

stroyed) I could gather a handsome nosegay for the library twice a week; I have now only one *Œnothera,* a white tobacco plant, some *Calceolariu,* stocks, white camomile, yellow *Fumaria, Argemone grandiflora,* and *Dianthus superbus;* and the flowers of these are so pale, and the plants have grown so tall and straggling, that they are scarcely ornamental: still, as I feel that till the Chrysanthemums blow, they are all I am to have this year, I cannot make up my mind to pull them up. I must now conclude, in order that we may both profit by the few tolerably dry days that we may have this month, to put our gardens in proper order against the winter.

Ever yours sincerely.

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LETTER XII.

DEAR HARRY, December 3.

I HAVE really so little to add to my directions for the last month, on the subject of your garden, that, as we are to meet soon, I should not have written again, had you not especially desired that I should send one more letter on the subject, to add to the eleven you have already received. I am well pleased by the care you have taken of my letters, and I hope they will be useful as a gardening manual. I recommend, however, that you should, from time to time, add your own observations, and the results of your own experience to them. If this be done with care, you will soon obtain a valuable stock of information. My principal

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object has been to call your attention, generally, to the subject of gardening and botany; and I shall have succeeded in my object, if I induce you to pay attention to the subject; you must, however, seek elsewhere for more detailed instruction.

I must recommend to your notice a book lately published, called "Conversations on Vegetable Physiology." Even if you have no inclination to study botany, you will be delighted with the work, and derive much amusement from merely seeing and understanding the reason of the different operations that are daily taking place in your garden.

Vegetable physiology is not, like botany, a mere classification of plants, and determination of their names: it is the science which makes you acquainted with their internal and external structure, their nature, habits, properties, man-

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ner of growing, and the functions, or duties, of their different organs: you will learn from it, how the hard and apparently dry seed, on being placed in the ground, begins to germinate; and the reason why this process takes place under-ground only, when it is almost entirely deprived of light and air, which are, you already know, essentially necessary to the health of that portion of the plant which is above ground. You will trace the seed from the first period of its existence, in the bosom of the flower, through its various stages, till it becomes an individual plant; after becoming acquainted with the natural organs of plants, you will see how the sap, (originally merely water containing different crude materials in solution,) absorbed by the roots, the extremities of which, for that purpose, resemble little sponges, rises, every spring, through the wood of the trees, and

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is conveyed to the bud, which it developes, and to the leaves in which the evaporation of the useless particles takes place, through pores furnished for that purpose. You will follow it in its descent through the bark, depositing, in its progress, all the nutritive particles it contains, and thereby increasing the tree in size and height. The examination of the flower, the different modes in which the fruit is formed, and the peculiar secretions of plants, such as oils, gums, resin, milk, &c. cannot, I think, fail to interest you.

Vegetable physiology is most interesting, perhaps, to those acquainted in some degree with the physiology of animals; because they are able to compare the organs, growth, &c. of both animal and vegetable kingdoms. It must be regarded as an important science, if we merely consider the direct benefits we derive

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from plants in nourishment for ourselves, many of the animals necessary to our existence; and relief from sickness, by the medicinal properties of some. Again, a close investigation of the structure, habits, and diseases of plants, will not only enable us to distinguish such as are suited to our climate, but, being intimately connected with agriculture, will teach us how to administer to the well being of those we already cultivate, and thereby improve them, as well as to supply, artificially, those advantages which they possess naturally in their own countries.

As *evaporation*, *oxygen* and *hydrogen gases*, *carbon*, and the action of light and heat, will be mentioned in the course of the two little volumes I have recommended to you, if you are totally unacquainted with the elements of chemistry, you will be much assisted, as

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well as entertained, by another book called "Conversations on Chemistry." Do not, therefore, be frightened by a few hard names, but begin with the last-mentioned book; and I have not the least doubt that you will be as much amused as instructed by the number of facts and observations contained in those works. I am certain, you will, next year, feel even still more interested in your garden, because you will be better acquainted with the nature of every thing growing in it.

I have several times, I think, in my letters, alluded to the usefulness of gardening, as an amusement, in inculcating a love of industry, order, and neatness; but I trust you will forgive my repeating what I remember to have said before, that I never wished to persuade you that it is the most important of occupations. I could quote what many

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great, and, what is more, many good men have said with respect to gardening, as an amusement fitted for good men: I shall, when I see you, tell you some stories of the love of great men for the pursuit itself. One of the greatest that ever lived in England, — I mean Lord Bacon, — loved and pursued gardening with delight, and in its pursuit made some of the experiments, and learned that habit of examination, which has made him celebrated in every age. Mr. Fox, one of our greatest statesmen, delighted in his garden more than in any other pursuit; and when all the pleasures of society and public life had ceased to amuse or excite him, his garden was always a source of pleasure. My father, who knew him, saw him, for the last time, tying up the Clematis of his veranda, with all the eagerness and pleasure of a boy. There is surely something grati-

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fying in knowing that our pursuits and amusements are sanctioned by such high authority and example. But enough of this; you will understand me better as you grow older; besides, I must not say too much on the subject, lest you should not feel so much interest in conversing when we meet.

You tell me, you continue so fond of your garden, that you will brave the cold, during December, to work in it; but you can do little, if you have finished your digging, besides keeping it swept and rolled. The frame plants, however, must be attended to; they must have a little air, when the weather is mild, and be protected with mats from the frosts. I have before told you, that, though the frost is to be kept from the frames, the plants must not be allowed to grow, with the exception of a few, to which it is natural to vegetate at this season, among

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these is the *Calceolaria.* When you find any plant beginning to grow, or draw, as it is termed, you may be certain that you are treating it too tenderly, and must alter your management, allowing it, by degrees, more air. I have already explained, in a preceding Letter, the reason of this. I therefore now take my leave of the subject on which we have been corresponding, regretting that I have not been able to give more information, yet pleased that I have been of some use to you. Consider me ever as

Your affectionate friend.

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